C/L TIMER v4.x

www.cltimer.com

The active timer controls the ESC actuating in the motor RPM during flight based on the data received from the accelerometer, keeping the flight speed more constant and making it possible to have flights 4-2-4 style,. It also allows pre-flight, flight time and motor RPM definition, with the setting of all parameters done through the timer using programming box JETI BOX (JETI Model).

The advantage of this timer besides the active RPM control is that the LED informs the start and end of the flight, thus not requiring the use of a stop watch.

- Signalling: Blue LED >15000MCD visible at Day light;
- Pre-flight time: 30 to 90 seconds;
- Flight time: 60 to 420 seconds;
- Warning before motor stop: 10 seconds;
- Active motor RPM control (accelerometer)
- Input voltage: 5Vcc (max. 5,5Vcc);
- Control pulse (ESC) PWM: 1ms to 2ms 50Hz;
- Cover mask for installation.

Programming:

The timer already has a pre-set for the initial flight, to make changes to settings connect the JETI BOX illustrations as always with the power off timer;





TABLE SETTINGS

SET	FUNCTION	RANGE	STEP
1	DELAY TIME	30 a 90 sec.	1 sec.
2	FLIGHT TIME	1 a 7 min.	1 sec.
3	RPM MOTOR (PWM)	0 - 400	1
4	RPM INCREASE NOSE UP 4-2-4	1 a 30	1
5	SENSOR SENSITIVITY	1 a 20	1
6	MAX RPM LIMIT	0 a 100%	5%
7	MIM RPM LIMIT	0 a 100%	5%

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Operation:

When you connect the battery to the ESC the LED will be on for four seconds and then it will start waiting mode.

Keeping START pushed until the LED is on, a short pulse will be sent to the motor; the LED will start to blink and pre-flight is started.

On the first flights keep pre-flight time on 30 seconds or more.

After pre-flight time, the motor will start and the LED will be on for a short time for equalization of the system (approx. 1 lap); then the LED will blink every second.

The ultimate flight signal happens 10 seconds before the end of the flight and the LED will be on until the engine stops.

Settings:

1° - Adjust the model speed by changing the engine RPM, the shorter flight at this stage it is important to preserve the battery does not go beyond their discharge capacity if the airplane is very fast. Increase the flight time gradually observing the amount of current consumed by the system while respecting the battery specifications.

 2° - Adjust the rise of rotation (set 4 of the table) observing the model flies well over head, this function is to define the flight style 4-2-4, to disable adjustment to value = 0;

 3° - Adjust the sensor sensitivity (set 5 of the table) observed during flight if there are variations in aircraft speed, the ideal is to maintain the same speed during flight the greater the sensitivity of the larger sensor the quickness in variation of RPM and by varying the engine is excessively change limits of variation of the speed (setting 6 and 7 of table).



Check out on the graphic the range of adjustments of motor RPM on the timer (1,2 - 2,0ms), the actuation of the accelerometer will be based on the defined RPM (hrotlle Base) varying for more or less.

The sensitivity defines the amplitude and the variation time within the limits set individually.

The RPM value depends on the setup configuration (motor, propeller, battery).

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Installation

Make a longitudinal rectangular hole with 7mm x 14mm on the left side of the fuselage so you can see the LED during flight.

by Fiorotti

The timer should be fixed on the inside with its terminals turned to the rear of the plane using adhesive double tape.

And then put on the cover mask.



The positioning of the sensor is extremely important for the system to work properly. It must be placed approximately 20 to 30mm from the bellcrank pivot point with the smooth side up and the wires facing forward.

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Important notes:

Always connect and disconnect the JETI BOX with Timer off (no power);

Navigate to the Accel Status screen note the value of the upper right corner, this value is the full level sensor factory, now position the plane as if in level flight the Y value should be equal, if not position the sensor by placing a shim.

<u>Safety:</u>

Every time you turn on the system be very careful about the propeller. Most ESCs have overcharge systems, stopping the propeller if it gets obstructed, but that does not prevent serious injuries.

Warranty:

This product has a one-year (12 months) warranty against manufacturing defects.

TIGHT LINES!!

SET ESC CASTLE CREATIONS v4.x

PHOENIX (ICE – EDGE) & TALON

In this mode Governor Hi adjust the RPM 0 to 200 (1,200 – 1,600ms PWM)

Throttle

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SET ESC CASTLE CREATIONS v4.x PHOENIX (ICE – EDGE) & TALON

Brake - Cuttoff - Motor

