PP-NESC * * A* Programming Instructions

IMPORTANT

Features

- ✓ Soft Starting – Reduces the stress on the airframe.
- ✓ Linear Throttle Response – Smooth and progressive throttling over the whole stick movement – easier to fly.
- ✓ Low Voltage Cut Off – Protect your batteries from damage due to excessive drain.
- ✓ Thermally Protected – The ESC will reduce the output power to the motor depending upon its temperature.
- ✓ Power on Protection – The motor will not start unless the throttle stick is in the off position when the power is applied.
- ✓ Simple Parameter Setting.

Product Specification

Model Number	Continuous Current	Burst Current	Input	BEC Output	Weight	Size (mm)
PP-NESC10A	10A	13A for 10 Seconds	2-3 LiPo 6-12.6VDC	5V @ 2A	7g	32 x 18 x 8
PP-NESC15AU	15A	18A for 10 Seconds	2-5 LiPo 6-21VDC	5V @ 2A	23g	59 x 24 x13
PP-NESC45AU	45A	55A for 10 Seconds	2-5 LiPo 6-21VDC	5V @ 3A	31g	60 x 35 x 15

Programmable Parameters

- ✓ Break Setting – Enable brake or disable brake. **The default is brake disabled**.
- ✓ Timing (lead angle) - Low / Medium / High. **The default is Low**. **Outrunners should only be used on either Medium or High Timing.**
- ✓ Throttle Response – The time taken for the throttle output to go from 0 to full throttle. The range is 0.25 - 4 seconds. **The Default is 0.25 seconds**
- ✓ Low Voltage Protection – High (3.10Volts per cell) / Medium (2.85V per cell) / Low (2.65V per cell). **The default is Medium.**
- ✓ Starting Voltage – Can be set between 3% and 45%. **The Default is 0%**
- ✓ Cut off - Hard or soft – **The Default is soft.**
- ✓ Governor setting – Enable or Disable. **The default is disable.**

How to Mount and Connect your ESC

- ✓ The leads from the battery to the ESC (red and black) can be extended up to 12 inches (300mm) if required. If a longer run is needed then extend the 3 wires to the motor as needed.
- ✓ Add your choice of connectors as necessary paying careful attention to the polarity of the wires that connect to your battery.
- ✓ Mount your ESC in a place with good cooling.
- ✓ Connect the 3 thick wires from the ESC to the motor; don't worry about the order just now.
- ✓ Connect the ESC (servo type plug) to the throttle channel on your receiver.
- ✓ Turn on your transmitter ensuring the throttle is in the lowest/off position and then connect the ESC to your flight battery.
- ✓ Ensure nothing can touch the propeller or be sucked into it. Gently blip the throttle once to check rotation of the motor. If the motor spins in the correct direction, disconnect the flight battery and turn your transmitter off. If the motor rotates in the wrong direction then disconnect the flight battery and swap over any 2 of the wires that connect the ESC to the motor, the motor will now turn in the other direction, yes it really is as simple as that.

Normal Operating Procedure

- ✓ Move the throttle stick to lowest/off position.
- ✓ Connect the flight battery to ESC. The ESC will beep once followed by a short pause, it will then beep the number of LiPo's it detects (2 beeps = 2 LiPo, 3 beeps = 3 LiPo's etc.) followed by another short pause then a longer beep to indicate the self check function was complete and everything is OK, you can now go and fly.

Parameter Setting Procedure with your Transmitter

There are 7 parameters to be set in the following sequence

1. Brake (on / off)
2. Timing (low / medium / high)
3. Throttle response (0.25 ~ 4 seconds)
4. Cut off voltage (2.65, 2.85, 3.10 Volts per LiPo cell)
5. Starting voltage (3% ~ 45%)
6. Cut off setting (hard / soft)
7. Governor setting (on / off)

- Switch on your transmitter.
- Pull the throttle stick to the lowest/off position.
- Connect the ESC to the battery.
- You will hear a long beep then within 2.5 seconds move the throttle stick to the highest position.
- You will then hear a short beep, move the throttle stick to the lowest position.
- You will then hear 2 short beeps, move the throttle stick to the highest position.
- You will then hear 3 short beeps.
- You are now in the programming mode.

Please note
For 2 choices this corresponds to the highest (on) and lowest (off) throttle stick positions.
For 3 choices this corresponds to the highest, middle and lowest throttle stick positions.
For variable choice this will be a direct relation to the position of the throttle stick.

After entering the programming mode move the throttle stick within 2.5 seconds to the desired position (highest = brake on, or lowest = brake off), the ESC will beep once to confirm setting.
Then proceed with setting the timing, the ESC will beep twice to confirm settings.
Continue to programme the rest of the parameters as above.
Once all parameters have been set, return the throttle stick to the lowest position otherwise the ESC will continue to beep until the throttle stick is returned to the lowest position.

Fault Finding

Problem	Cause	Solution
The motor does not respond to the throttle and continuously beeps	1. Throttle range not configured. 2. Throttle stick is not at the lowest position. 3. There is no signal output from receiver.	1. Configure the throttle range. 2. Move the stick to the lowest/off position. 3. Check the receiver.
The motor rocks back and forth and doesn't rotate	1. Bad solder joint between motor and ESC 2. Broken wire between motor and ESC	1. Check and re-solder connectors/joints 2. Check and repair any broken wires
The motor not respond to the throttle and no any tone is heard.	Battery connection error	Check the connection to the battery pack and/or check battery voltage.
The motor suddenly stops while working	1. Loss of throttle signal. 2. Battery connection is loose.	1. Check the transmitter and receiver. Check the connection to throttle channel. 2. Check the battery output and connection to the ESC.
The motor rotates in the wrong direction	Incorrect phase sequence.	Swap the connection of any 2 of the 3 wires between the ESC and the motor.
Full power not available or the motor stops just after starting.	1. Not enough voltage in the battery. 2. Loose battery connection.	1. Recharge or replace the battery for a fully charged one. 2. Check the connections between the battery and the ESC.