

Electronic Speed Controller

Users' Manual *For Prog-Box*

PULSO™ Master

1. Operation Procedure

- 1) Connect the ESC with the motor;
- 2) Connect the ESC with the Prog-box;
- 3) Connect the ESC with the battery;
- 4) Press lightly the four buttons on the Prog-box to choose the options showed on the LCD;
- 5) As every programming is saved, you'll hear one confirmation beep;
- 6) As the programming process is finished, disconnect the main power and the Prog-box with ESC.

2. Functions on the Prog-box

| Functions | Parameter | Note |
|--------------------------------------|---|--|
| Reverse Mode | On / Off | Select Forward or Reverse |
| Timing Mode | 2, 8, 15, 30 ° (Setting by Radio) | Select different Modes in terms of different motors |
| | 0,1,2- - - - - 30 ° (Setting by Prog-Box) | 0-7 ° for 2 pole motors |
| | | 5-15 ° for 4 pole motors. |
| | | 10-20 ° for 8 pole motors. |
| | | 20-30 ° for 10 (or more) pole motors |
| Frequency (ONLY for Model Boat) | 8, 16, 32 (Khz) | Select different Modes in terms of different motors 8Khz for Common setting (Lowest Efficiency Loss) 16Khz for low "Impedance" motor 32Khz for low " sensibility reciprocal " motor |
| Acceleration | Soft / Medium / Hard | Control the speed of motor acceleration by delay the act of Throttle |
| Accumulator (Battery) Type | Nicd / NiMh / Lilo / LiPo | Select battery type *Lilo=(Li-ion) *LiPo=(Li-polymer) |
| Nicd / NiMh cut-off voltage per cell | 0.4/0.5/0.6/0.7...1.0V per cell | Setting cut-off voltage per cell for NI-CD / NI-MH |
| Lilo / LiPo Off voltage set | Automatic detection | ONLY available for 2-3 cells Lilo / LiPo battery |
| | 2-5 Lilo or LiPo battery | Setting cell numbers of Lilo / LiPo battery by Prog-Box |
| Lilo / LiPo Cut-off Voltage per cell | 2.0/2.1/2.2/2.3/2.4...3.2V per cell | Setting cut-off voltage/Cell for Lilo/LiPo * Recommended cut-off voltage: 3.0V-3.2V |
| Cut-off Mode | Slow Down / Hard | Slow Down--reduce the speed slowly; Hard—stop operation quickly |
| Throttle Curve | Logarithmical | Factory default—Linear |
| | Linear | |
| | Exponential | |
| ABS Brake (ONLY for Model Car) | On / Off | Select On / Off for ABS Brake |
| Power Limit (Forward) | Off / 75% / 50% / 25% | Total power limit |
| Power Limit (Reverse) | Off / 75% / 50% / 25% | Total power limit |
| Delay Time | 0.25 / 0.5 / 0.75 / 1 / 1.5 / 2.5 (Seconds) | Select different delay time for Reverse |
| Forward Point | Auto Detection | |
| | Fixed: 1.7 / 1.8 / 1.9 / 2.0 (mS) | |
| Reverse/Brake Point | Auto Detection | |
| | Fixed: 1.0 / 1.1 / 1.2 / 1.3 (mS) | |
| Timing Monitor | On / Off | Timing Monitor for brushless ESC with no Sensor |