



**Feature** : Shuttle-E is suitable for R/C modeling cars and/or boats and features a middle-high loading DC carbon brushes motor **with over-heat output power regular, reverse function and no signal motor locked function**. Single push button to setup, easy to operate (see **Setup**). 3.4kHz PWM for smooth speed control.

**Operation Voltage** : DC 5V~12V (NiCd 、 NiMH battery pack 5~8 cells).

**Setup Mode LED function** :

※LED flashes quickly (ON/OFF 0.2S/0.2S) : Control stick is in neutral.

※LED always ON : Control stick is set to forward or reverse, not in neutral.

**Operation Mode LED function** :

※LED always ON : Control stick is set in forward full speed or during braking.

※LED flashes quickly (ON/OFF 0.2S/0.2S) : Control stick is set in reverse full speed.

※LED flashes slowly (ON/OFF 0.1S/0.9S) : Control stick is set in neutral.

※LED OFF : Without signal, ESC is powered and Transmitter power is OFF, it is possible that LED flashes because of noise.

※LED dimmed ON : Control stick is set between neutral point and full speed.

**Installation** : To reduce noise, solder the capacitors to motor polarities and shell (one pin to polarity and the other pin to shell). Connect Shuttle-E ESC between Receiver throttle and motor, and fix with double side foam tape. Never remove heat sink of ESC. Disconnect motor before Setup.

**Setup** :

1. Turn Transmitter throttle control switch to "NOR" (It is possible need to change the motor polarity connections because of different installation).
2. Put throttle stick to neutral and turn Transmitter to ON.
3. Turn ESC to ON, push setup button until LED flashes after about 2 seconds.
4. Push stick to forward full speed and then pull stick to reverse full speed (LED will be always ON when stick is not at neutral).
5. Put stick at neutral, LED will flash faster after about 3 seconds, and then LED will turn to flash slowly (one flash per second) after about 4.5 seconds, that means ESC completed SETUP and saved in memory.
6. Preventing gears breakdown, when turn reverse after high forward speed, ESC will brake about 0.6 seconds first. If users want to remove this function, push setup button again in **Step5** when LED is flashing faster (After pushing, LED will turn always ON).
7. Shuttle-E can memory setup, no need to setup again after out of power except R/C system change.

**Test and Operate** :

1. Turn Transmitter ON, connect ESC to motor and battery. Turn ESC ON, push control stick forward and check if motor runs (ensure motor wires are not shorting and motor is not locked before test).
2. If motor runs, push stick to full speed and check if LED turns ON.
3. Pull stick to reverse full speed and check if motor slows down immediately and then turn to reverse, and the LED turns to flash 0.2s ON/OFF.
4. If LED is ON when reverse and flashes 0.2s ON/OFF when forward, modify Transmitter throttle control switch and setup again. If everything is correct, enjoy the fun.