Thanks for purchasing our Electric Speed Controller (ESC). High power system for RC model is very dangerous, please read this manual carefully. We have no control over the correct use, installation, application, or maintenance of our products, no liability shall be assumed nor accepted for any damages, losses or costs resulting from the use of the product. Any claims arising from the operating, failure or malfunctioning etc. will be denied. We assume no liability for personal injury, property damage or consequential damages resulting from our product or our workmanship. As far as legally permitted, the obligation to compensation is limited to the invoice amount of the affected product.

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Cont. Cells</th>
<th>Burst Current (×100)</th>
<th>BEC Mode</th>
<th>BEC Output</th>
<th>BEC Output Capability</th>
<th>Battery Cell</th>
<th>Weight</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTF 40A-UBEC</td>
<td>40A</td>
<td>55A</td>
<td>Switch</td>
<td>5V/3A</td>
<td>5 servos</td>
<td>5 servos</td>
<td>43g</td>
<td>62mm</td>
</tr>
<tr>
<td>RTF 60A-UBEC</td>
<td>60A</td>
<td>80A</td>
<td>Switch</td>
<td>5V/5A</td>
<td>8 servos</td>
<td>8 servos</td>
<td>63g</td>
<td>75mm</td>
</tr>
<tr>
<td>RTF 80A-UBEC</td>
<td>80A</td>
<td>100A</td>
<td>Switch</td>
<td>5V/5A</td>
<td>10 servos</td>
<td>10 servos</td>
<td>77g</td>
<td>93mm</td>
</tr>
<tr>
<td>RTF 100A-OP™+UBEC</td>
<td>100A</td>
<td>120A</td>
<td>Switch</td>
<td>5V/8A</td>
<td>12 servos</td>
<td>12 servos</td>
<td>77g</td>
<td>75<em>40</em>17.5</td>
</tr>
</tbody>
</table>

Programmable items: (The option written in bold font is the default setting)

1. Brake Setting:  Enabled / Disabled
2. Battery Type: Lipo / NiMH
3. Low Voltage Protection Mode (Cut-Off Mode): Soft Cut-Off (Gradually reduce the output power) / Cut-Off (Immediately stop the output power)
4. Low Voltage Protection Threshold (Cut-Off Threshold): Low / Medium / High
   1) For lithium battery, the battery cell number is calculated automatically. Low / medium / high cutoff voltage for each cell is: 2.85V/3.15V/3.3V. For example: For a 3S LiPo, when “Medium” cutoff threshold is set, the cutoff voltage will be: 3.15V×3=9.45V
   2) For NiMH battery, low / medium / high cutoff voltages are 0% /50% /65% of the startup voltage (i.e. the initial voltage of battery pack), and 0% means the low voltage cut-off function is disabled. For example: For a 6 cells NiMH battery, fully charged voltage is 1.44×6=8.64V, when “Medium” cut-off threshold is set, the cut-off voltage will be: 8.64×65%=5.634V
5. Startup Mode: Normal / Soft / Super-Soft (300ms / 1.5s / 3s)
   a) Normal mode is suitable for fixed-wing aircraft. Soft or Super-soft modes are suitable for helicopters. The initial acceleration of the Soft and Super-Soft modes are slower, it takes 1.5 second for Soft startup or 3 seconds for Super-Soft startup from initial throttle advance to full throttle. If the throttle is completely closed (throttle stick moved to bottom position) and opened again (throttle stick moved to top position) within 3 seconds after the first startup, the re-startup will be temporarily changed to normal mode to get rid of the chance of a crash caused by slow throttle response. This special design is suitable for aerobatic flight when quick throttle response is needed.

Program the ESC with your transmitter (4 Steps)

1. After entering program mode, you will hear 8 tones in a loop with the following sequence. If you move the throttle stick to bottom within 3 seconds after one kind of tones, this item will be selected.
   - 1 beep
   - 2 short beeps
   - 3 beep beeps
   - 4 short beeps
   - 5 beep beeps beeps
   - 6 beep beeps beeps beeps
   - 7 beep beeps beeps beeps beeps
   - 8 beep beeps beeps beeps beeps beeps

2. Select programmable items

3. Set item value (Programmable value)

4. Exit program mode

Trouble Shooting

<table>
<thead>
<tr>
<th>Trouble</th>
<th>Possible Reason</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>After power on, motor does not work, no sound is emitted</td>
<td>The connection between battery pack and ESC is not correct</td>
<td>Check the power connection. Replace the connector.</td>
</tr>
<tr>
<td>After power on, motor does not work, such an alert tone is emitted: “beep-beep-beep-beep-beep-beep-beep-beep” (Every “beep-beep” has a time interval of about 1 second)</td>
<td>Input voltage is abnormal, too high or too low</td>
<td>Check the voltage of battery pack</td>
</tr>
<tr>
<td>After power on, motor does not work, such an alert tone is emitted: “beep-beep-beep-beep” (Every “beep” has a time interval of about 2 seconds)</td>
<td>Throttle signal is irregular</td>
<td>Check the receiver and transmitter. Check the cable of throttle channel</td>
</tr>
<tr>
<td>After power on, motor does not work, such an alert tone is emitted: “beep-beep-beep” (Every “beep” has a time interval of about 0.25 second)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direction of the throttle channel is reversed, so the ESC has entered the program mode</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The motor runs in the opposite direction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Program the ESC with your transmitter (4 Steps)

1. Enter program mode

2. Select programmable items

3. Set item value (Programmable value)

4. Exit program mode

2. Select programmable items

3. Set item value (Programmable value)

4. Exit program mode

There are 2 ways to exit program mode:

1. In step 3, after special tone “J j j j j j j j” is emitted, move throttle stick to bottom within 2 seconds.
2. In step 2, after tone “beep-beep-beep-beep” (th at is: The item #8), move throttle stick to bottom within 3 seconds.