Thank you for buying ALIGN products. The T-REX 600E PRO is the latest technology in Rotary RC models. Please read this manual carefully before assembling and flying the New T-REX 600E PRO helicopter. We recommend that you keep this manual for future reference regarding tuning and maintenance.
1. INTRODUCTION

Thank you for buying ALIGN Products. The T-REX 600 E PRO Helicopter is designed as an easy to use, full featured Helicopter R/C model capable of all forms of rotary flight. Please read the manual carefully before assembling the model, and follow all precautions and recommendations located within the manual. Be sure to retain the manual for future reference, routine maintenance, and tuning.

The T-REX 600 E PRO is a new product developed by ALIGN. It provides flying stability for beginners, full aerobatic capability for advanced flyers, and unsurpassed reliability for customer support.

Thank you for choosing ALIGN products. If you have any questions, problems, or suggestions, please feel free to contact us. We will do our best to help you.

WARNING LABEL LEGEND

- **WARNING**
  - Mishandling due to failure to follow these instructions may result in damage or injury.
  - Caution: Mishandling may result in damage or injury.

- **CAUTION**
  - Mishandling due to failure to follow these instructions may result in danger.
  - Caution: Mishandling may result in danger.

- **FORBIDDEN**
  - Do not attempt under any circumstances.

IMPORTANT NOTES

R/C helicopters, including the T-REX 600 E PRO are not toys. R/C helicopter utilize various high-tech products and technologies to provide superior performance. Improper use of this product can result in serious injury or even death. Please read this manual carefully before using and make sure to be conscious of your own personal safety and the safety of others and your environment when operating all ALIGN products.

Manufacturer and sellers assume no liability for the operation or the use of this product. Intended for use only by adults with experience flying remote control helicopters at a legal flying field. After the sale of this product we cannot maintain any control over its operation or usage.

T-REX 600 E PRO is a precision instrument and should be handled with care. It contains many delicate components that are easily damaged. Improper handling may result in serious injury or death.

We recommend that you obtain the assistance of an experienced pilot before attempting to fly our products for the first time. A local expert is the best way to properly assemble, set up, and fly your model for the first time. The Helicopter requires a certain degree of skill to operate, and is a consumer item. Any damage or dissatisfaction as a result of accidents or modifications are not covered by any warrantee and cannot be returned for repair or replacement. Please contact our distributors for free technical consultation and parts at discounted rates when you experience problems during operation or maintenance.

2. SAFETY NOTES

**CAUTION**

- Fly only in safe areas, away from other people. Do not operate R/C aircraft within the vicinity of homes or crowds of people. R/C aircraft are prone to accidents, failures, and crashes due to a variety of reasons including, lack of maintenance, pilot error, and radio interference. Pilots are responsible for their actions and damage or injury occurring during the operation or as a result of R/C aircraft models.

- Damage to the model is a result of misuse or operator error. When assembling or operating, please be careful, or the model may be damaged. Please follow the instructions carefully.
LOCATE AN APPROPRIATE LOCATION

R/C helicopters fly at high speed, thus posing a certain degree of potential danger. Choose an appropriate flying field consisting of flat, smooth ground without obstacles.

Do not fly near buildings, high voltage cables, or trees to ensure the safety of yourself, others, and your model.

For the first practice, please choose a legal flying field and can use a training skid to fly for reducing the damage. Do not fly your model in inclement weather, such as rain, wind, snow or darkness.

PREVENT MOISTURE

R/C models are composed of many precision electrical components.

It is critical to keep the model and associated equipment away from moisture and other contaminants. The introduction or exposure to water or moisture in any form can cause the model to malfunction resulting in loss of use, or a crash. Do not operate or expose to rain or moisture.

PROPER OPERATION

Please use the replacement of parts on the manual to ensure the safety of instructors.

This product is for R/C model, so do not use for other purpose.

Please use the replacement of parts on the manual to ensure the safety of instructors.

This product is for R/C model, so do not use for other purpose.

OBTAIN THE ASSISTANCE OF AN EXPERIENCED PILOT

Before turning on your model and transmitter, check to make sure no one else is operating on the same frequency. Frequency interference can cause your model, or other models to crash.

The guidance provided by an experienced pilot will be invaluable for the assembly, tuning, trimming, and actual first flight.

[Recommend you to practice with computer-based flight simulator.]

SAFE OPERATION

Operate this unit within your ability. Do not fly under tired condition and improper operation may cause in danger.

ALWAYS BE AWARE OF THE ROTATING BLADES

During the operation of the helicopter, the main rotor and tail rotor will be spinning at a high rate of speed. The blades are capable of inflicting serious bodily injury and damage to the environment. Be conscious of your actions, and careful to keep your face, eyes, hands, and loose clothing away from the blades. Always fly the model a safe distance from yourself and others, as well as surrounding objects. Never take your eyes off the model or leave it unattended while it is turned on. Immediately turn off the model and transmitter when you have landed the model.

KEEP AWAY FROM HEAT

R/C models are made up various forms of plastic. Plastic is very susceptible to damage or deformation due to extreme heat and cold climate. Make sure not to store the model near any source of heat such as an oven, or heater. It is best to store the model indoors, in a climate-controlled, room temperature environment.

Avoid exposure to direct sunlight and extreme heat sources; plastic can melt or warp, which can cause the model to become unsafe to fly.
5. SAFETY CHECK BEFORE FLYING

**CAREFULLY INSPECT BEFORE REAL FLIGHT**

- Before flying, please check to make sure no one else is operating on the same frequency for the safety.
- Before flight, please check if the batteries of transmitter and receiver are enough for the flight.
- Before turn on the transmitter, please check if the throttle stick is in the lowest position, IDLE switch is OFF.
- When turn off the unit, please follow the power off procedure. Power ON-Please turn on the transmitter first, and then turn on receiver. Power OFF-Please turn off the receiver first and then turn off the transmitter. Improper procedure may cause out of control, so please to have this correct habit.
- Before operation, check every movement is smooth and directions are correct. Carefully inspect servos for interference and broken gear.
- Check for missing or loose screws and nuts. See if there is any cracked and incompolate assembly of parts. Carefully check main rotor blades and rotor holders. Broken and premature failures of parts possibly cause resulting in a dangerous situation.
- Check all ball links to avoid excess play and replace as needed. Failure to do so will result in poor flight stability.
- Check if the battery and power cause the plug loose. Vibration and violent flight may cause the plug loose and result out of control.

**Standard Equipment**

<table>
<thead>
<tr>
<th>60HC1</th>
<th>60HH</th>
<th>60HB1</th>
<th>60HB2</th>
<th>60HB3</th>
<th>60HB4</th>
<th>60HB5</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNC Sent Thread Main Drive Gear</td>
<td>CNC 主軸螺絲</td>
<td>CNC主軸螺絲</td>
<td>CNC主軸螺絲</td>
<td>CNC主軸螺絲</td>
<td>CNC主軸螺絲</td>
<td>CNC主軸螺絲</td>
</tr>
<tr>
<td>CNC Servo Arm x 3</td>
<td>CNC舵機</td>
<td>CNC舵機</td>
<td>CNC舵機</td>
<td>CNC舵機</td>
<td>CNC舵機</td>
<td>CNC舵機</td>
</tr>
<tr>
<td>60HT</td>
<td>60HT1</td>
<td>60HT5</td>
<td>60HG1</td>
<td>60HZ</td>
<td>60HC1</td>
<td>60HH</td>
</tr>
<tr>
<td>60HT</td>
<td>60HT1</td>
<td>60HT5</td>
<td>60HG1</td>
<td>60HZ</td>
<td>60HC1</td>
<td>60HH</td>
</tr>
<tr>
<td>60HT</td>
<td>60HT1</td>
<td>60HT5</td>
<td>60HG1</td>
<td>60HZ</td>
<td>60HC1</td>
<td>60HH</td>
</tr>
<tr>
<td>M4x4 Set Screw x 1</td>
<td>M4x4自攻螺絲 x 2</td>
<td>Castle ICE HV 90 Brushless ESC</td>
<td>6A External BEC w/ 5.1V Two-way Step-down Voltage regulator</td>
<td>RCM-BL600MX Motor</td>
<td>RCM-BL600MX Motor</td>
<td>8000 Carbon Fiber Blade</td>
</tr>
<tr>
<td>60HT</td>
<td>60HT1</td>
<td>60HT5</td>
<td>60HG1</td>
<td>60HZ</td>
<td>60HC1</td>
<td>60HH</td>
</tr>
</tbody>
</table>

**When you see the marks as below, please use glue or grease to ensure flying safety.**

- **CA**: Apply CA Glue to fix.
- **AB**: Apply AB Glue to fix.
- **R48**: Apply Anaerobics Retainer to fix.
- **T43**: Apply Thread Lock to fix.
- **CA**: 使用膠水固定
- **R48**: 使用甲基錫密封或螺絲固定
- **T43**: 使用環保膠
- **R48**: 將螺絲或螺母（如軸承）用環保膠
- **T43**: 將螺絲或螺母（如軸承）用環保螺

When assembling ball links, make sure the "A" character faces outside.

If there are any questions or concerns, please contact us.
Main frame assembly key point:
First do not fully tighten the screws of main frames and put two bearings through the main shaft to check if the movements are smooth. The bottom bracket must be firmly touched to the level table top (glass surface). Please keep the smooth movements on main shaft and level bottom bracket, then slowly tighten the screws. This assembly can help for the power and flight performance.

600NG1
- Socket screw (M3 x 0.5 x 12mm) x 4
- M3 Washer M3 x 0.5 x 12mm x 4
- M3 Set screw M3 x 0.5 x 12mm x 4

600HB4
- Socket button head self tapping screw (M3 x 0.50 x 12mm) x 2
- Socket button head self tapping screw (M3 x 0.50 x 12mm) x 2

600HB4A
- Socket screw (M3 x 0.50 x 12mm) x 2

600HB3A
- Socket collar screw (M3 x 0.50 x 12mm) x 2

Canopy spacer
4.6 x 0.7 x 22mm

Hex mounting bolt
3x6mm

Receiver mount

Battery release latch

F3C Landing skid (2 x 25.5mm)

M3 Washer (3 x 0.5 x 12mm)

Socket screw (M3 x 0.50 x 12mm) x 2

Landing skid nut

Skid pipe end cap
0.5 x 0.7 x 8mm

Battery release latch installation illustration

Apply a little amount of T43 thread lock when fixing a metal part.
Apply a little amount of T43 thread lock when fixing a metal part.

While assembly the slide shaft, please use suitable amount of T43 on the thread. Please do not use Rd6 anaerobics retainer or other high strength glue to avoid damages while maintenance or repair.

Apply grease on thrust bearing

Assembling Umbrella Gear: Please note to push the gear to the end at a 2nd position. Make sure the gears mesh with each other smoothly.

After complete the tail rotor assembly, please check if it rotates smoothly.
Tip to fix the torque tube

Please apply some CA glue to fix bearing on the torque tube, avoid CA glue from the dust or may cause the bearing stuck. When assembling into the tail boom, please apply some oil and use the attached torque tube mount helper to press the bearing holder of the torque tube into the tail boom horizontally.

Spray silicone oil inside the tail boom

Tail boom

Bearing

Neutral point
of torque tube

Torque tube mount helper
(PVC packing tube)

Torque tube bearing holder

Tube front

Spray Silicone oil inside the tail boom

Bearing Trim 5 - 7 cm

Torque tube bearing holder

Tube end
7. Battery installation illustration 電池安裝示意圖

- **Battery installation illustration 電池安裝示意圖**

  - **CAUTION 注意**
  - Please fix the 2 batteries on the battery mount evenly.
    - 2電池請均勻固定於電池座上。
  - **Hook and loop tape (fuzzy) 背黏的編織帶**
  - **Battery mount 電池固定座**
  - **Hook and loop tape (hooked) 帶黏的編織帶**
  - **Battery release latch 電池解扣**

  - **CAUTION 注意**
  - Slide the battery mounting plate along the rail until a "click" is heard to make sure the battery mounting plate is latched.
    - 將電池固定板沿著導軌滑動，直至聽見"喀喇"聲，確保電池固定板已扣好。

- **Step 步驟**

8. Equipment installation 各項設備配置圖

- **Option equipment 選購品**
  - Battery of receiver 接收機電池
  - Head loc gyro GP780 頭部陀螺儀 GP 780
  - Hook and loop tape (fuzzy) 固定編織帶(軟)
  - Receiver mount 接收機座
  - Double sided tape 雙面膠帶
  - **Battery 電池**
  - **Hook and loop tape 背黏的編織帶**
  - **Receiver 接收機**
12. SERVO SETTING AND ADJUSTMENT

To set this option is to turn on the transmitter and connect to BEC power.

positions of CH2 - CH6 are exchangeable. After assembling as photo (Note: set the transmitter under CCPM 120 degrees mode), pull throttle stick (pitch) upward. If one swashplate servo (or two servos) moves downward, adjust reverse switch (REV) on the transmitter to make it moves upward. If three servo moves downward, adjust the travel value (+) of SWASH CH6 on the transmitter to make them move upward. When the actions of Aileron and Elevator are opposite, adjust travel values of SWASH CH2 and CH3.

FUTABA/HITEC Transmitter/Servo

positions of CH1 - CH4 are exchangeable. After assembling as photo (Note: set the transmitter under CCPM 120 degrees mode), pull throttle stick (pitch) upward. If one swashplate servo (or two servos) moves downward, adjust reverse switch (REV) on the transmitter to make it moves upward. If three servo moves downward, adjust the travel value (+) of SWASH CH6 on the transmitter to make them move upward. When the actions of Aileron and Elevator are opposite, adjust travel values of SWASH CH1 and CH2.

13. ADJUSTMENTS FOR GYRO AND TAIL NEUTRAL SETTING

Recommend to choose Head Lock type for Gyro and turn off Revolution mixing (RV/MX) mode on the transmitter, then set the gain switch on the transmitter and the gyro to Head Lock mode. The gain setting is about 70%, and after transmitter setting, connect to BEC power to work on tail neutral setting. Note: When turn on BEC power, please do not touch tail rudder stick and the helicopter. Then wait for 3 seconds, make tail servo arm and tail serve at a right angle (90 degrees), tail pitch assembly must be correctly fixed about in the middle of the travel of tail rotor shaft for standard neutral setting.

TAIL NEUTRAL SETTING

After setting Head Lock mode, correct setting position of tail servo and tail pitch assembly as photo. If the tail pitch assembly is not at the neutral position, please adjust the length of rudder control rod to trim.

HEAD LOCK DIRECTION SETTING OF GYRO

To check the head lock direction of gyro is to move the tail counterclockwise and the tail servo horn will be trimmed counterclockwise. If it trims in the reverse direction, please switch the gyro to “REVERSE”.

Gyro lock settings should be ensured to prevent the tail from moving excessively when the gyro is activated.
### 14. PITCH AND THROTTLE SETTING

**GENERAL FLIGHT**

| Stick position at high/Throttle 100% Pitch 12° |
| Stick position at hovering/Throttle 60%~65% Pitch 5° |
| Stick position at low/Throttle 0% Pitch 0° |

**3D FLIGHT**

| Stick position at high/Throttle 100% Elev 10°~12° |
| Stick position at middle/Throttle 80% Pitch 0° |
| Stick position at low/Throttle 0% Pitch 12° |

**CAUTION**

2. If the pitch is set too high, it will result in shorter flight duration and poor performance.
3. Setting the throttle to provide a higher speed is preferable to increasing the pitch too high.

**TIP**

It is recommended to use a lower pitch setting when using higher RPM/Head speed. This will allow for better power.

**IDLE 1: SPORT FLIGHT**

<table>
<thead>
<tr>
<th>Throttle</th>
<th>Pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>0%</td>
</tr>
<tr>
<td>4</td>
<td>10%</td>
</tr>
<tr>
<td>3</td>
<td>20%</td>
</tr>
<tr>
<td>2</td>
<td>30%</td>
</tr>
<tr>
<td>1</td>
<td>40%</td>
</tr>
</tbody>
</table>

**IDLE 2: 3D FLIGHT**

<table>
<thead>
<tr>
<th>Throttle</th>
<th>Pitch</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>10%</td>
</tr>
<tr>
<td>4</td>
<td>20%</td>
</tr>
<tr>
<td>3</td>
<td>30%</td>
</tr>
<tr>
<td>2</td>
<td>40%</td>
</tr>
<tr>
<td>1</td>
<td>50%</td>
</tr>
</tbody>
</table>
### BATTERY 电池

<table>
<thead>
<tr>
<th>Motor Pinion Gear</th>
<th>Main Rotor Blade</th>
<th>Pitch</th>
<th>Current (A)</th>
<th>Throttle Curve</th>
<th>RPM approx.</th>
</tr>
</thead>
<tbody>
<tr>
<td>13T</td>
<td>600mm Carbon</td>
<td>Hover</td>
<td>13</td>
<td>60/65/65/65/100%</td>
<td>1750</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Idle</td>
<td>18</td>
<td>85%Middle</td>
<td>2500</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>23.0</td>
<td>100/100/100/100/100%</td>
<td>2720</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>56</td>
<td></td>
<td>2470</td>
</tr>
</tbody>
</table>

**NOTE:** Please use a pitch gauge to adjust the pitch value. Incorrect excess pitch setting will result in poor helicopter performance and reduce ESC’s life and battery’s life.

### RCM-BL600MX 510KV MOTOR

**Specification 尺寸规格**

<table>
<thead>
<tr>
<th>KV</th>
<th>accessory KV</th>
<th>Input Voltage</th>
<th>Rated Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>510KV</td>
<td>510KV(RPM/V)</td>
<td>DC 11.1~50.4V</td>
<td></td>
</tr>
<tr>
<td>Stator Arms</td>
<td>12</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Max continuous current</td>
<td>75A</td>
<td>Max Instantaneous current</td>
<td>125A(5sec)</td>
</tr>
<tr>
<td>Max continuous power</td>
<td>3300W</td>
<td>Max Instantaneous power</td>
<td>5500W(5sec)</td>
</tr>
<tr>
<td>Dimension</td>
<td>Shaft 6x46x59mm</td>
<td>Weight</td>
<td>Approx. 340g</td>
</tr>
</tbody>
</table>

**Illustration 拆解示意图**

The motor rotates in different direction with different brand ESCs. If the wrong rotating direction happens, please switch any two cables to make the motor rotates in right direction.

由於各品牌電子變速器馬達啓動轉向不盡相同，若發生轉向錯誤時，請將馬達與電子變速器的接線任意兩條對調即可。
16. 6A EXTERNAL BEC INSTRUCTION MANUAL

- Input voltage: DC7.4V 2cell Lithium battery
- Output voltage: DC5.8V
- Max. Continuous Current: 6A
- Integrated power switch and voltage indicator meter
- Utilizes a linear design, resulting in no interference to the receiver.
- Including a 5A 5.1V two-way step-down Voltage Regulator
- Size: 60x34x15mm
- Weight: 2g (including wire set)

WIRING ILLUSTRATION:
Connect the 5.1V two-way step-down voltage regulator between the gyro and the rudder servo.

1. A auto-detected voltage meter display lighter. If the entire five-light array is illuminated, the battery is fully charged.
   When the voltage drops below 7.4V, the two green lights will be turned off. Use caution, the battery can only be safely used for a single flight. When only the red light is on, the battery is drained, and must be fully recharged before use. Do not attempt to operate the model during this condition.

2. Some servos such as Futaba servo models 9241, 9251, 9253, 9254, 9255, 9256 and other digital servos are not capable of handling 6V. Please connect a 5.1V two-way step-down voltage regulator to avoid the servo damaged. If you are using a servo that can accept 6V input, the regulator is not required.

3. When using a speed controller with BEC output, you must remove the red wire of BEC output on the speed controller.

4. If the regulator does not have enough channels or an available socket, you can use a Y-type servo harness to share any channel with an existing connection.

17. GP780 HEAD LOCK GYRO SET USER MANUAL

- Utilizes Silicon Micro Machines (S.M.M) sensor with excellent stability to dramatically reduce in-flight tail drifts.
- Utilizes AHCS (Active Helicopter Tail Control System) to compensate any drift caused by wind direction and force, as well as unintended pressure changes by helicopter itself during flight maneuvers.
- Tailor made specifically for use with high speed digital rudder servos. This gyro features high sensitivity and minimal reaction time, fully utilizing the potential of modern high speed digital rudder servos.
- Suitable for all sizes of helicopters, from micro indoor to large 90 size glower helicopters.
- Metallic damping plate built into bottom gyro casing, dramatically increasing anti-vibration and anti-interference abilities.
- Features 1520μs pulse wide and 780μs narrow pulse width frame rate.
- Digital/Analog servo switchable.
- Reverse switch.
- Rudder servo travel limit adjustment (ATW).
- Mode switch for large/mini helicopter.
- Delay adjustment.
- Gyro locking mode and gain can be adjusted remotely from the transmitter.

Features 產品特色
- 利用Silicon Micro Machines (S.M.M) 儀器，具備優良的穩定性，大幅降低尾舵偏移的現象。
- 利用AHCS (Active Helicopter Tail Control System) 來補償任何風向及風力所造成之偏移。
- 專為使用高級數位搖控系統設計，達到極高的精度，完全掌握飛機尾部的偏移及修正。
- 可設定鎖定搖控系統至最大半徑範圍。
- 各類不同飛行器可調整的偏移及修正能力。
NOTE: 1. *“* Default setting  2. Wrong mode will affect the performance of gyro. Do not fly before the complete setting.

### T-REX600/700 Standard setting T-REX600/700 标准设定

#### Step 1

- **Green LED（Green）**
  - Standard 1200μs Servo
  - Narrow 700μs Servo
- **3D Gyro**
  - Standard Servo
  - Narrow Servo

#### Step 2

- **Green LED（Green）**
  - Normal operation
  - Reverse operation
- **3D Gyro**
  - Manual operation
  - Remote operation

#### Step 3

- **Green LED（Green）**
  - Normal operation
  - Reverse operation
- **3D Gyro**
  - Manual operation
  - Remote operation

#### Step 4

- **Green LED（Green）**
  - Standard Servo
  - Narrow Servo
- **3D Gyro**
  - Manual operation
  - Remote operation

#### Step 5

- **Green LED（Green）**
  - Standard Servo
  - Narrow Servo
- **3D Gyro**
  - Manual operation
  - Remote operation

---

### GP780 Gyro Specifications

- **Operating Voltage**: DC 4.5~7V
- **Current Consumption**: <80mA @ 4.8V
- **Angular Detection Speed**: ±500 degrees/sec
- **Operating Temperature**: -20°C~65°C
- **Operating Humidity**: 0%~95%
- **Size**: 26x25x11mm
- **Weight**: 14g
- **RoHS compliant**
- **Input Voltage**: DC 4.5~7V
- **Input Voltage**: <5mA at 4.8V
- **Input Voltage**: ±200°/sec
- **Input Voltage**: 0.5V~5V
- **Input Voltage**: 10-bit
- **Input Voltage**: 14g

---

### DS 650 Digital Servo DS 650数字伺服器

- **Speed**: 0.058sec/60deg (4.8V)
- **Torque**: 4.0kg.cm (4.8V)
- **Dimensions**: 40.3 x 20.1 x 36mm
- **Weight**: 50g (Servo horn not included)
- **Standby**: 1520μs (standard band)
- **Rated Voltage**: 0.05sec/60° (4.8V)
- **Switching Time**: 4.0ms (4.8V)
- **Operating Time**: ±50°/sec
- **Input Voltage**: ±5V
- **Input Voltage**: 10-bit

### Illustration

- **Gain and Rudder channel mapping diagram**

<table>
<thead>
<tr>
<th>Transmitter Type</th>
<th>Rudder channel on Receiver</th>
<th>Gain channel on Receiver</th>
</tr>
</thead>
<tbody>
<tr>
<td>JR PPM/SCM</td>
<td>&quot;RUDO&quot;</td>
<td>&quot;CH5&quot;</td>
</tr>
<tr>
<td>Hitite &amp; Fatara PPM/PCM</td>
<td>&quot;CH14&quot; (RUDO)</td>
<td>&quot;AUX 2&quot; or &quot;AUX 3&quot;</td>
</tr>
<tr>
<td>JR ZPCM</td>
<td>&quot;RUDO&quot;</td>
<td>&quot;CH5&quot;</td>
</tr>
</tbody>
</table>

---

ALIGN
Gyro Installation

1. Utilizing the included double-sided foam tape as shown in diagram below, mount the gyro on a solid platform or designated gyro mounting location on the helicopter.

2. Ensure gyro mounting area have proper ventilation and away from heat sources.

3. For installation on electric powered helicopters, the gyro should be installed as far away from the electronic speed controller (ESC) as possible to avoid interference (minimum 5cm).

4. Use the supplied plastic block to attach the gyro to the mounting area. It is recommended to use the plastic block to ensure a proper fit for the gyro.

Usage Setting instructions

1. Transmitter Settings: After powering up transmitter, make sure rudder subtrim is zeroed. Then power on the receiver and gyro. The gyro will go through initialization process indicated by flashing LED 3 times and the status LED will be red when initialization is complete. As indicated by a steady LED. A green LED indicates gyro is in AHRS mode and white LED indicates gyro is in normal mode.

2. 1500s (standard) or 1000s throw bands servo selection: GP700 offers compatibility for two types of frame rates under digital mode. Please set the GP700 to 700 mode if 700s frame rate is used and 1500s mode if 1000s are used. Most servos support 1200s frame rate, and GP700 should be set to 1200 mode if those servos are used.

3. To enter the setup mode: Press and hold the set button for 2 seconds, and the STATUS LED will begin flashing. When the 1500s/1000s indicator light up, you are in the servo frame rate setup menu. Use the toggle stick on your transmitter to select the menu: move the stick to the left (or right) and STATUS LED changes accordingly. If you want to set the frame rate to 700s, move the stick to the opposite end and 3 times to make STATUS LED changes. (Note: the facia of GP700 has the setting values listed on the corresponding red/black labels.)

4. Press the set button to confirm the current setting and enter the next setting. The GP700 will keep setting mode if left idle for 10 seconds.

5. Digital (DS) / Analog (AS) Servo Selection: Servo speed and precision is paramount in minimizing the gyro's performance. Fast servos are able to respond to gyro commands quickly, resulting in precise and accurate control. Due to the high sensitivity of GP700 gyro, high speed digital servos such as Futaba S2360, S2360, S2260, S2260, Futaba S2360, S2296, S2294, or similar high-speed servos are recommended. Select 'DS' when digital servos are used, and 'AS' when analog servos are selected.

6. To enter the setup mode: Press and hold the set button for 2 seconds, and the STATUS LED will begin flashing. Press the set button repeatedly until DS/AS is lit. Use the toggle stick on your transmitter to select the servo type: move the stick to the left (or right) and STATUS LED changes. If the servo type is set to DS, move the stick to the opposite direction and STATUS LED changes. (Note: the facia of GP700 has the setting values listed on the corresponding red/black labels.)

7. Usage Setting instructions: The usage setting is for advanced users only. It is recommended to leave the factory setting as is. The usage setting is for advanced users only. It is recommended to leave the factory setting as is.

8. The usage setting is for advanced users only. It is recommended to leave the factory setting as is. The usage setting is for advanced users only. It is recommended to leave the factory setting as is.

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11. The usage setting is for advanced users only. It is recommended to leave the factory setting as is. The usage setting is for advanced users only. It is recommended to leave the factory setting as is.
5. Setting of gyro direction notification: Check the gyro direction by moving the heli on the yaw axis while holding by hand. Observe the direction gyro is moving the rudder servo. If direction is incorrect, switch the direction switch on the gyro to compensate.

To enter the setup mode: Press and hold the SET button for 2 seconds, and the STATUS LED will begin flashing.

Press the SET button repeatedly until RED/REV led is lit. Use the rudder stick on your transmitter to steer the servo in the direction you wish to set. The servo will then move the rudder stick to the desired position.

6. Rudder Servo Travel Limit Adjustment: Press and hold the SET button for 2 seconds until the STATUS LED flashes.

At this point the rudder servo will be centered. Press the SET button repeatedly until LED is lit. While observing the tail blast gradually move the rudder stick on your transmitter left until the tail pitch slider reaches its mechanical end (without binding), then center the rudder stick and hold 2 seconds until STATUS LED flashes red. Now perform the same for right rudder; move the rudder stick on your transmitter right until the tail pitch slider reaches the other end, center the stick and hold 2 seconds for LED to flash again. This will set the travel limit of the rudder servo on both sides. Insufficient rudder servo travel will result in decreased rudder performance, while excessive rudder servo travel will overload the rudder servo and cause failures.

7. Gyro Gain Adjustments: For radio with gyro function, gain can be adjusted using this function. The AHNTS (heading lock gain) is set by adjusting the AHNTS setting between 90% and 100% with the normal mode gain is 9% by adjusting the GYRO setting between 0% and 100%.

Actual gain settings will differ among different helicopters and servos. The goal is to achieve as much as gain as possible without the tail oscillating unnecessarily. Therefore, such adjustment can only be done under actual flight conditions.

Suggested initial settings are 20% ~ 30% for dynamic flying, and 70% ~ 90% for static conditions. Gyro gain can be increased or decreased depending on the presence of tail oscillation during flight.

Note: For radio systems using 0% gyro gain adjustment under heading lock mode (such as Fatshark), the recommended gain setting is approximately 30% ~ 33%. For radio system using 50% gyro gain adjustment under heading lock mode (such as JR and Hitec), the recommended gain setting is approximately 70% ~ 73%.

8. Helicopter mode and SET button: This helicopter mode includes two functions:

(1) (QP3G)/QP0 supports monochrome and helicopters. Set the setting based on the appropriate helicopter class.

(2) Set the helicopter mode to monochrome (Status LED turns red) for T-Rex 250 and 450; set the helicopter mode to medium/large setting (Status LED turns green) for T-Rex 600/600/700.

(3) GNYG meter may cause tail oscillation as it receives the faster signal from gyro. If tail oscillation occurs after hand stop from stationary position, increase the gain setting until such oscillation steps.

Setting Method: Press and hold the SET button for 2 seconds to enter the setup menu, and select SET DELAY. Push the rudder stick left or right and observe the STATUS LED.

RED STATUS represents miniature helicopters; LED (such as T-Rex 250/450). GREEN STATUS represents medium/large helicopters such as T-Rex 600/600/700. The amount of delay is set by holding the rudder stick at the position corresponding the delay percentage, 0% at middle stick position (STATUS LED is off) and 100% at the end position, and pressing the SET button to confirm the delay setting.

18. FLIGHT ADJUSTMENT AND SETTING 飞行動作調整與設定

PLEASE PRACTICE SIMULATION FLIGHT BEFORE REAL FLYING 飛行前請先於模擬器練習

Do a simulation flight until you familiarize your fingers with the movements of the rudders, and keep practicing until the fingers move naturally.

1. Place the helicopter in a clear open field (Make sure the power OFF) and the tail of helicopter point to yourself.

2. Practice to open the throttle sticks below illustration and practicing "Throttle high/low", "Allr on left/right", "Rudder left/right", and "Elevator up/down".

3. The simulation flight practice is very important, please keep practicing until you can easily move your fingers and operate the controls as if you were flying.

Another safe and effective practice method is to use the transmitter flying on the computer through simulator software sold on the market.

1. Make sure the helicopter is at rest on the ground in an open area with no obstacles. Keep a distance of at least 100 feet from other people and objects, including vehicles.

2. Practice to open the throttle sticks below illustration and practicing "Throttle high/low", "Allr on left/right", "Rudder left/right", and "Elevator up/down".

3. Make sure you can easily move your fingers and operate the controls as if you were flying.

4. Practice to open the throttle sticks below illustration and practicing "Throttle high/low", "Allr on left/right", "Rudder left/right", and "Elevator up/down".

5. Make sure you can easily move your fingers and operate the controls as if you were flying.

6. Practice to open the throttle sticks below illustration and practicing "Throttle high/low", "Allr on left/right", "Rudder left/right", and "Elevator up/down".

7. Make sure you can easily move your fingers and operate the controls as if you were flying.

8. Practice to open the throttle sticks below illustration and practicing "Throttle high/low", "Allr on left/right", "Rudder left/right", and "Elevator up/down".

9. Make sure you can easily move your fingers and operate the controls as if you were flying.
FLIGHT ADJUSTMENT AND NOTICE FOR BEGINNERS

- Make sure that no one or obstacles in the vicinity.
- You must first practice hovering for flying safely. This is a basic flight action.
- If you are not sure, please refer to the manual or consult the instructor.

STEP 1 THROTTLE CONTROL PRACTICE

When the helicopter begins to lift off the ground, slowly reduce the throttle to bring the helicopter back down. Keep practicing this action until you control the throttle smoothly.

**When arriving at the flying field.**

- Check if the screws are firmly tightened.
- Check if the transmitter and receiver are fully charged.
- Make sure the helicopter is in a fixed position.
- If you are not sure, please refer to the manual or consult the instructor.

**Main rotor adjustments**

- Tracking adjustment is very dangerous, so please keep away from the helicopter at a distance of at least 10m.
- Before adjusting, apply a red piece of tape on one blade, or paint a red stripe on the blade.
- Raise the throttle stick slowly and stop just before the helicopter lifts off the ground. Look at the spinning blades from the side of the helicopter.
- Look at the path of the rotor carefully. If two blades rotate in the same path, it does not need to adjust. If one blade is higher or lower than the other blade, adjust the tracking immediately.

**Linkage rod (A): Regular pitch trim (For large variations). Linkage rod (C): Slight pitch trim (For slight variations).**

- Incorrect tracking may cause vibrations. Please repeat adjusting the tracking to make sure the rotor is correctly aligned. After tracking adjustment, please check the pitch angle is approx. +4° -5° when hovering.

- Please stand approximately 10m diagonally behind the helicopter.

- Beginner may install a training landing gear to avoid any crash caused by offset effect while landing.

- If you encounter unexpected situations, please refer to the manual or consult the instructor.

**Starting and Stopping the Motor**

- First check to make sure no one else is operating on the same frequency. Then place the throttle stick at lowest position and turn on the transmitter.
- If there are other radio control aircraft at the field, make sure to check their frequencies and tell them what frequency you are using.
- Frequency interference can cause your model, or other models, to crash and increase the risk of danger.
- Make sure the other model's programming is different from yours.

- Are the rudders moving according to the controls?
- Follow the transmitter's instruction manual to do a range test.
- Battery and charger should be supplied at your own expense.

- ONE Step 1: First turn on the transmitter.
- ONE Step 2: Next turn on the receiver.
- OFF Step 4: Reverse the above orders to turn off.

- When rotating, the blade with higher path means the pitch is too big. Please shorten pitch linkage rod (C) for slight trim.

- When rotating, the blade with lower path means the pitch is too small. Please lengthen pitch linkage rod (C) for slight trim.
STEPP 2 AILERON AND ELEVATOR CONTROL PRACTICE

1. Raise the throttle stick slowly.
2. Move the helicopter in any direction back, forward, left and right, slowly move the aileron and elevator sticks in the opposite direction to fly back to its original position.

CAUTION
- If the nose of the helicopter moves, please lower the throttle stick and land the helicopter. Then move your position diagonally behind the helicopter 10m and continue practicing.
- If the helicopter flies too far away from you, please land the helicopter and move your position behind 10m and continue practicing.

CAUTION
- Please takeof from a smooth, flat surface. Avoid taking off on grass, dirt, or rough terrain.
- Please ensure there is enough space around you.

STEP 3 RUDDER CONTROL PRACTICING

1. Slowly raise the throttle stick.
2. Move the nose of the helicopter to the right or left, and then slowly move the rudder stick in the opposite direction to fly back to its original position.

STEP 4

After you are familiar with all actions from Step1 to 3, draw a circle on the ground and practice within the circle to increase your accuracy.

After completing all actions from Step1 to 3, draw a circle on the ground and practice within the circle to increase your accuracy.

You can draw a smaller circle when you get more familiar with the actions.

STEP 5 DIRECTION CHANGE AND HOVERING PRACTICE

After you are familiar with Step 1 to 4, stand at side of the helicopter and continue practicing Step 1 to 4. Then repeat the Step 1 to 4 by standing right in front of the helicopter.

ADJUSTMENT OF EACH TRIM

Slowly raise the throttle stick and just as the helicopter lift-off the ground, you can use the trim to correct the action if the helicopter leans in a different direction.

1. Adjustment of elevator trim
   - Just before the helicopter lift-off, the nose lean forward/backward.
   - When lean forward, adjust the trim down.
   - When lean backward, adjust the trim up.

2. Adjustment of aileron trim
   - Just before the helicopter lift-off, the body lean left/right.
   - When lean right, adjust the trim to left side.
   - When lean left, adjust the trim to right side.

TROUBLE SHOOTING DURING FLIGHT

<table>
<thead>
<tr>
<th>Situation</th>
<th>Cause</th>
<th>Way to deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blade Tracking</td>
<td>Out of tracking</td>
<td>Adjust the length of linkage rod.</td>
</tr>
<tr>
<td>Low rotation of the rotor</td>
<td>Pitch of main blade is high.</td>
<td>Decrease the elevator stick.</td>
</tr>
<tr>
<td>High rotation of the rotor</td>
<td>Pitch of main blade is low.</td>
<td>Increase the elevator stick.</td>
</tr>
<tr>
<td>Sensitivity of the gyro</td>
<td>Failure setting of tail neutral point.</td>
<td>Adjust the pitch rod.</td>
</tr>
<tr>
<td>The tail moves left and right during flight</td>
<td>The sensitivity of the gyro is high.</td>
<td>Decrease the gyro.</td>
</tr>
</tbody>
</table>

If there is still a problem even after tried above, stop flying and contact your seller.
Specifications & Equipment:
Length: 1160mm
Height: 353mm
Main Blade Length: 600mm
Main Rotor Diameter: 1347mm
Tail Rotor Diameter: 260mm
Motor Pinion Gear: 13T
Main Drive Gear: 112T
Autorotation Tail Drive Gear: 131T
Tail Drive Gear: 34T
Drive Gear Ratio: 1:8.61:3.85
Weight (With Motor): 2350g