



# 2.4GHz 4CH Digital Proportional R/C Transmitter/Receiver

## Instruction Manual 10213



### WARNING

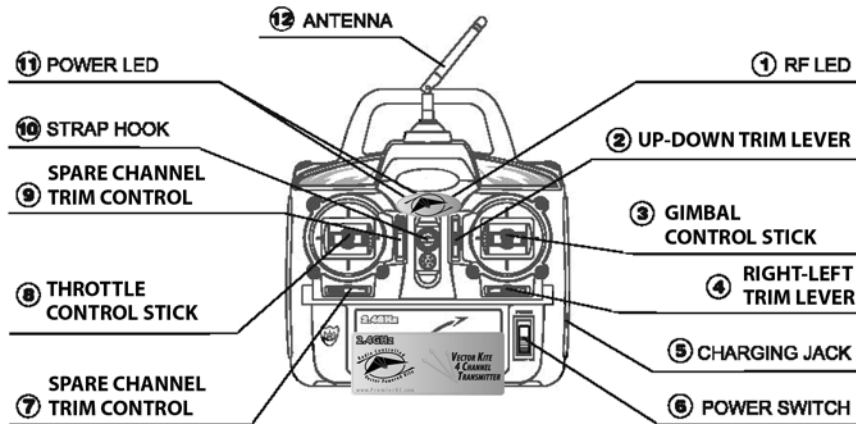
- It may be dangerous to try remote control fly, this product is not children's toy, it's made for people over 14 years old. To be used for children must in the custody of adults who have studied the precautions given in this kit set.
- When use it, you must keep far away from the crowd, passerby, traffic hub and airports, and choose a large open place or a place with out high-voltage wires or automobile, or other electromagnetic interference within 500 meters, for fear of affect the distance of remote control or out of control.
- Do not fly in the lightning, rain, wind, fog, night, or other weather.



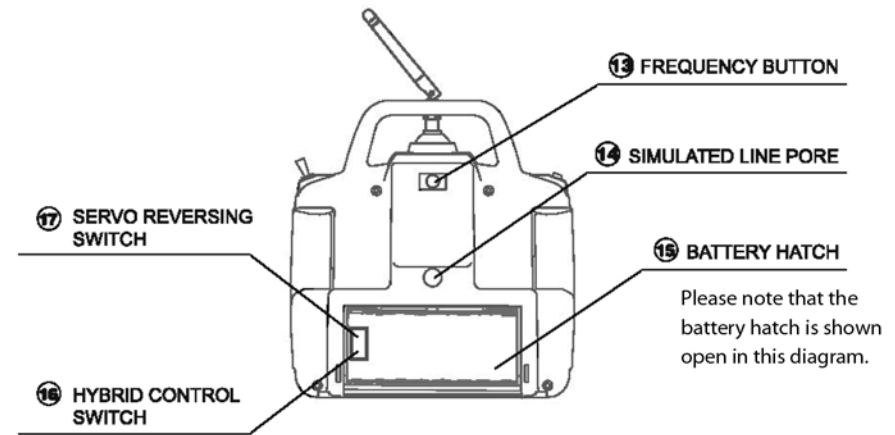
Thank you for choosing PREMIER RC Digital proportional Radio Control System. This product could apply to all kinds of Vector Kites, electric power, fixed-wing airplane, and general helicopters (but it would not apply to CCPM helicopter). Please read the following instructions carefully before using. If you have any difficulty when using this system, please read this manual. If you need more help, please contact the local product distributor, or visit our website [www.premierRC.com](http://www.premierRC.com). You may also call us directly (TEL: 1-888-416-0174 FAX: 301-277-3323).

Premier RC is not responsible for unauthorized modification, adjustment or replacement of parts on this product. Any unauthorized alteration will be disclaimed of all responsibility by our company.

## 1. TRANSMITTER INSTRUCTIONS



- ① **RF LED:** If RF LED light is blue after turning on, it indicates that the RF module is working normally. If RF LED is not lit, it indicates that there is something wrong with the RF module, and the receiver cannot be controlled properly, and the powered kite cannot take off.
- ② **UP-DOWN TRIM LEVER:** Is used to adjust the gimbal up or down when the control stick is in the neutral position.
- ③ **GIMBAL CONTROL STICK:** This stick controls the direction the vector kite flies by adjusting the direction that the gimbal moves to direct thrust. (Please read pages 4-5)
- ④ **RIGHT-LEFT TRIM LEVER:** Is used to adjust the gimbal to the right or left when the control stick is in the neutral position. (Please read page 7)
- ⑤ **CHARGING JACK:** When using the charging Ni-Mh battery or Ni-CH battery, please charge the Ni-Mh( Ni-CH) battery when the red light begins flashing. This interface can't link DC directly. (The charger is not included with this product; it must be purchased separately).

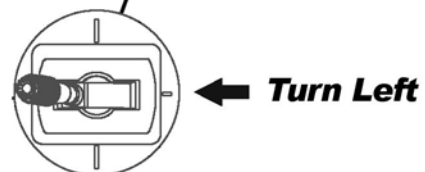
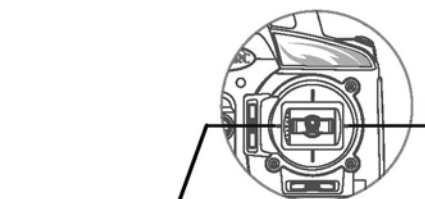
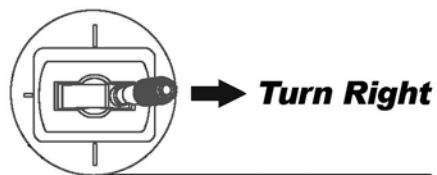


- ⑥ **POWER SWITCH:** Is used to turn the Transmitter's power on and off.
- ⑦ **SPARE CHANNEL TRIM CONTROL :** Currently with vector kite control the optional trim control and left hand stick control is not in use. Advanced modelers may use this extra channel for accessories such as lights, aerial cameras or smoke devices.
- ⑧ **THROTTLE CONTROL STICK:** This stick controls the speed of the motor. (Please read pages 5-6)
- ⑨ **SPARE CHANNEL TRIM CONTROL:** Currently with vector kite control the optional trim control and left hand stick control is not in use.
- ⑩ **STRAP HOOK:** Is used to connect the strap ring to the transmitter.
- ⑪ **POWER LED:** If the red and green lights are lit after turning the transmitter on, the battery's power is normal. When the power is lower than 9V, the green light will begin flashing and send out an intermittent "beeping" sound to remind you the power is too low. When this occurs land the kite and change or recharge the transmitter's battery. When the power is lower than alarm voltage, the green light will go off and the red light will begin to flash, and it will send out a continuous "beeping" alarm sound until the transmitter is closed. This will occur with a 4 minute warning to land the airplane model before it will run out of control. When flying the airplane, you should avoid letting the voltage of the transmitter run down to the alarm level.
- ⑫ **ANTENNA:** Radiates radio control signals. Suggest adjusting the antenna upward or downward to get the best enhanced radiation effect.
- ⑬ **FREQUENCY BUTTON:** Is used to adjust the frequency of the receiver. (Please read pages 8-9)
- ⑭ **SIMULATED LINE PORT:** Is used to connect simulated line (must be purchased separately). Suitable for beginners to control computer simulated flight software and to practice controlled flight. (please read page 11)
- ⑮ **BATTERY HATCH:** Open the battery hatch to install the transmitter's batteries. Be sure to use 8 alkaline batteries or 8 Ni-Mh (Ni-Mh) batteries. (Please read page 9)
- ⑯ **HYBRID CONTROL SWITCH:** Is used to turn the aileron/hybrid control elevator on and off. (Right is on, left is off). For Vector kites, leave "off".
- ⑰ **SERVO REVERSING SWITCH:** This switch is used to change the direction of response of each servo. Each channel has a correspondent reversing switch. When you push the switch of correspondent reversing switch, the correspondent servo will rotate in the opposite direction. After using the reversing function, check all of the controls on the model to be certain they are operating in the correct direction and that you did not inadvertently reverse a servo other than the one intended. Reversing the wrong servo (or not checking the response of the controls before each flight) may be the most common cause of a crash.

## 2. GIMBAL CONTROL

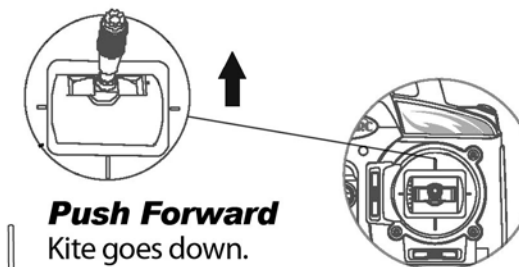
### (Diagram Mode 2 Right Control Stick)

When the right control stick is pushed to the right, the gimbal will turn the propeller right and the vector kite will fly to the right.

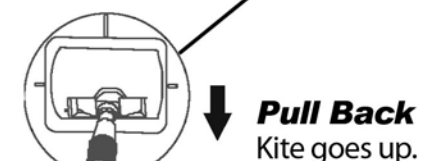
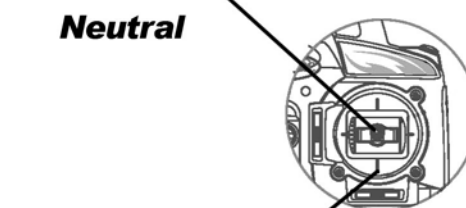


When the right control stick is pushed to the left, the gimbal will turn the propeller left and the vector kite will fly to the left.

When the right control stick is pushed forward, the gimbal will turn the propeller down, and the vector kite goes down.



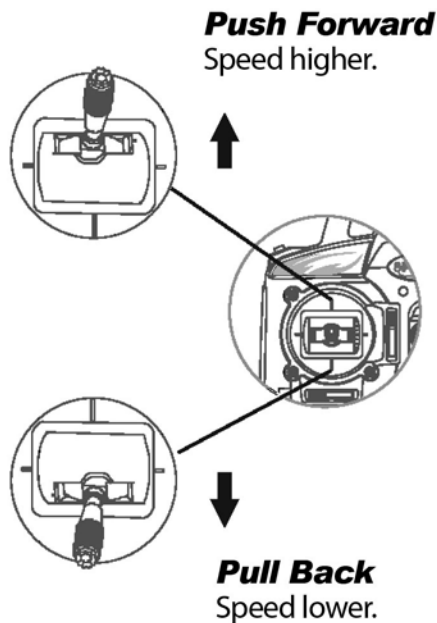
When the right control stick is left in the neutral position, the propeller will remain straight.



When the right control stick is pushed back, the gimbal will turn the propeller up, and the vector kite goes up.

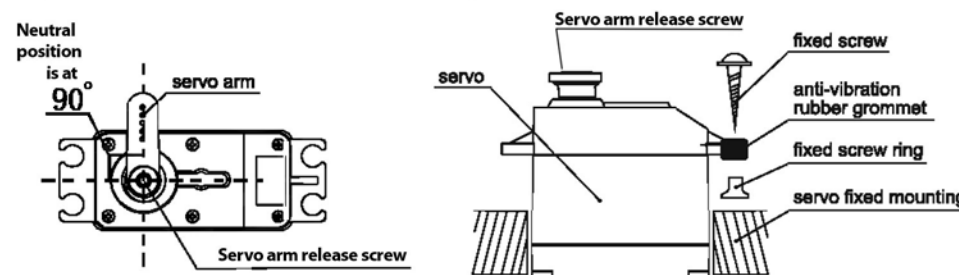
### 3. THROTTLE CONTROL

Push the throttle stick forward to make the motor speed up.



Pull the throttle stick backward to make the motor speed slow down and stop.

### 4. SERVO INSTALLATION



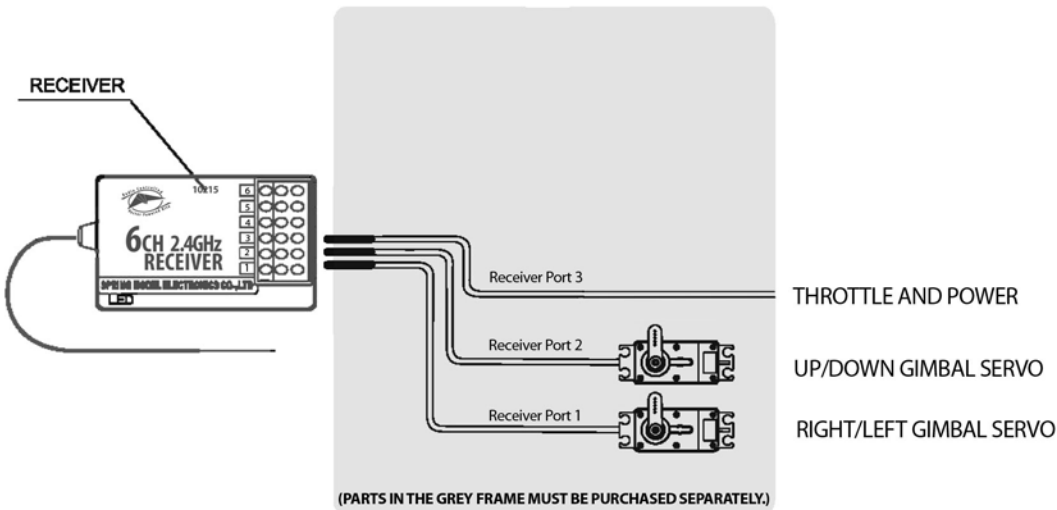
#### HOW TO SET THE NEUTRAL POSITION OF SERVO

1. Turn on the transmitter and receiver's power. Move the control stick and make sure that the servo rotates right. (If the direction is wrong, please use the reversing servo to set function.)
2. Put the control stick in the middle position, and adjust all trim levers to the middle position.
3. Install the servo arm on the servo, keeping it 90 degrees to the pull rod. The servo arm is installed and re-installed by the servo arm release screw.
4. Connect the pull stick with the servo arm, adjusting the length of the pull stick and making sure that the face of servo is in the middle position.

#### HOW TO SET THE TRIM LEVER

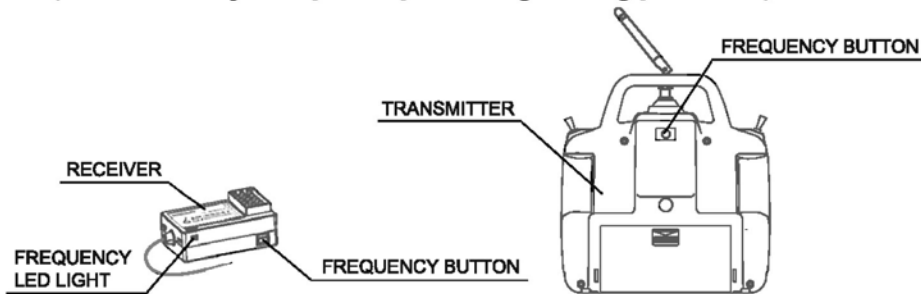
1. After the servo arms, push rods and servo plate have been installed correctly and centered, the trim button can be used to make adjustments in the kite's flight path to compensate for minor irregularities as well as flight preferences. As long as the corresponding trim button has been adjusted according to the direction of flight up and down (pitch) and side to side (yaw), then the model will fly in a straight line or in a horizontal line.
2. If it is far away from the center, you can record the position of angle of servo, then take the servo arm off, place the servo arm and trim lever in the middle position and then adjust the length of push rod to keep the angle of servo in the correct position. After this "mechanical" correction of the servo arm, the servo can then be finely tuned by the trim control.

## 5.CONNECTION OF RECEIVER AND SERVO



## 6. HOW TO ADJUST THE FREQUENCY

(Not necessary except if experiencing binding problems.)



1. Under the condition of closing off the transmitter and receiver's power, press and hold down the transmitter's frequency button as you as turn on the power switch. The blue light will go on. (Loosen the button after the light is on.)

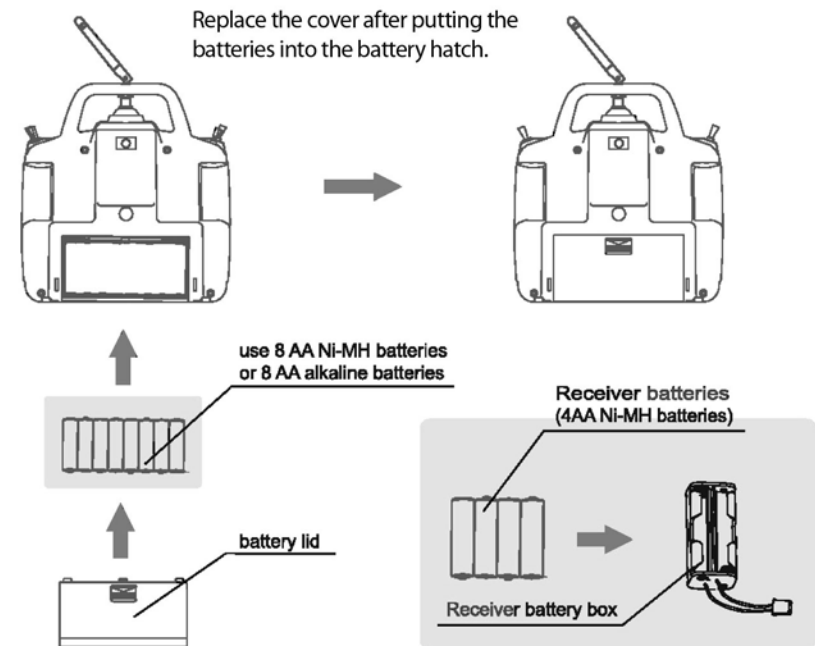
2. Press down and hold the receiver's frequency button, while simultaneously turning on the receiver's power (the red LED light should not go on). The frequency adjustment will take 3 seconds. If the red LED light turns on it means that the frequency adjustment failed. Please turn off the receiver's power and repeat the 2nd step. (Note: this button is small, please make sure the button is pressed down, or else the frequency adjustment cannot be finished successfully.)

3. Turn off the transmitter and receiver's power.

4. Restart the transmitter and receiver's power. A few moments later, the blue and red LED lights should go on. This indicates the frequency adjustment was successful, and you can go into the normal R/C operation.

## 7.BATTERY INSTALLATION

**!** When installing the battery, do not mix old and new or different types of batteries.



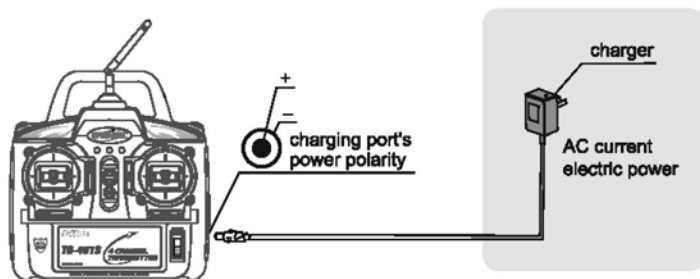
## 8.NOTICE



**Do not charge non-rechargeable batteries, as this is dangerous and could cause an accident. All the rechargeable batteries are labeled "1.2V X X m AH". Non-rechargeable batteries are labeled "1.5V".**

## Charging the transmitter battery

**Attention:** Optional rechargeable battery needed. Available at your local hobby store.



1. Make sure that all the batteries are rechargeable ones before charging it, and close the battery lid.
2. Insert the charger into the charging jack.
3. Plug the nose of the charger into the charging jack of the transmitter.
4. Charge the batteries according to the introduction manual. Cut off the power immediately after the charging finished.

## NOTICE

1. Please charge the battery according to the manual.
2. Make sure the charger and battery are on a fire-resistant place or the ground or faraway from anything combustible.
3. Make sure that someone is supervising the charger during the charging process.
4. Please check the voltage of the transmitter batteries before flying the aircraft. Methods: Turn on the power of transmitter first, and then the receiver. Move the control stick; use the multimeter to test the working voltage of batteries (under the servo working situation.) The power shouldn't be lower than 4.8V. When testing without instrument, if the servo is not powerful or the angle is too small it indicates that the power is too low, and you should charge the receiver battery immediately.

## 9.TURNING ON AND OFF: IMPORTANT

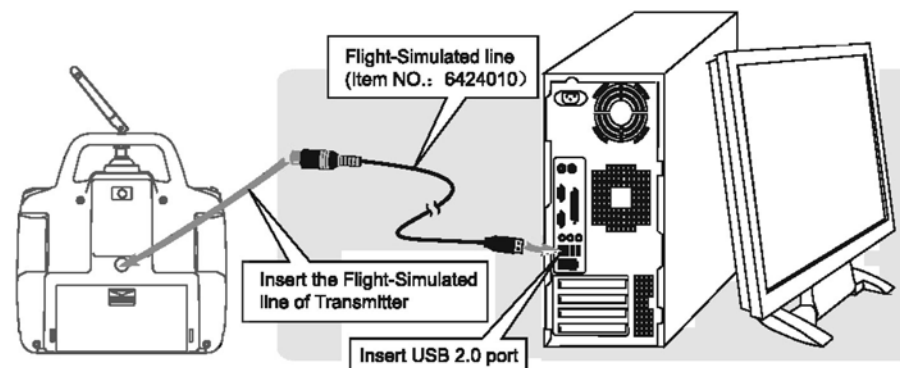
### Turn on

1. Turn on the power switch of the transmitter first.
2. And then turn on the power of the receiver.

### Turn off

1. Turn off the power of the receiver first.
2. And then turn off the power of the transmitter.

## 10.Connection of Flight - Simulated Line



**Before inserting the Flight-Simulated line, please turn off the transmitter's power.**

## 11.Specifications

### Transmitter: TG461

**Transmission frequency:** 2.4GHz~2.483GHz

**Control method:** FSK

**Control system:** PPM

**Operating system:** 4CH

**Power:** 8 AA Ni-MH/Alkaline batteries

**Current:** <200mA

**Size:** 201 × 192 × 60(mm)

**Trimmer method:** Electric trim

**Temperature:** -20 °C~70 °C

### Receiver: RG661

**Receiving frequency:** 2.4GHz~2.483GHz

**Control method:** FSK

**Control system:** PPM

**Output Channel:** 6CH

**Power:** 4.8V~6V

**Current:** <20mA

**Weight:** 6.8g

**Size:** 34 × 20 × 14(mm)

**Temperature:** -20 °C~70 °C