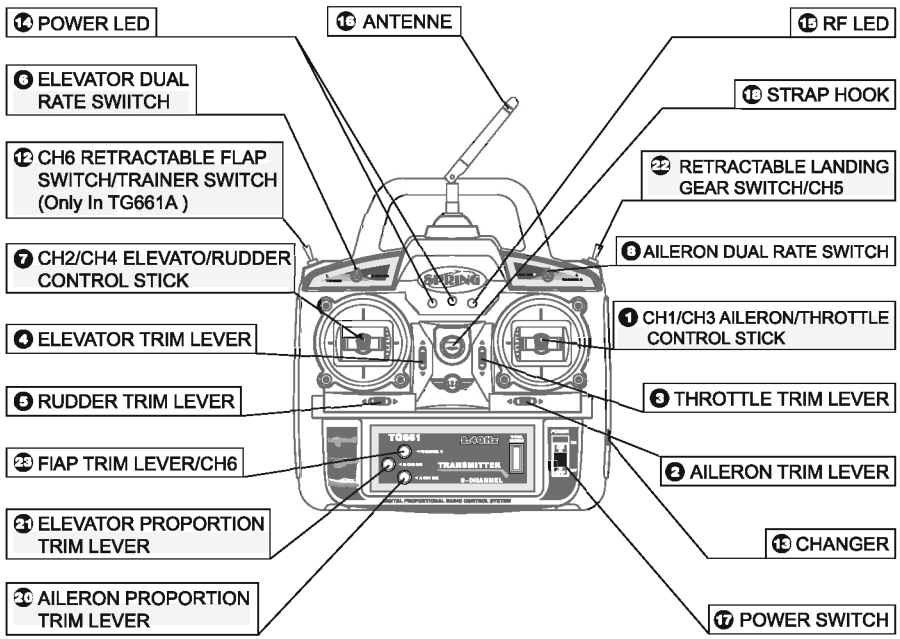
Thank you for choosing Springrc Digital proportion Radio Control System. Thisproduct could apply to all kinds of electric power, oil powered fixed-wing airplaneand general helicopters (not apply to CCPM helicopter). Please read the following instruction carefully before your first using.

If there is any difficulty when you set or control the system, please read this manual. If you need more help, please contact the local product distributor or visit our web site www. springrc.com, or call us directly.(TEL:+86-0755-29749860 FAX:+86-0755-29749779)

Spring Model Electronic CO.,LTD is not responsible for unauthorized modification, adjustment and replacement of parts on this product. Any such changes may avoid warranty.

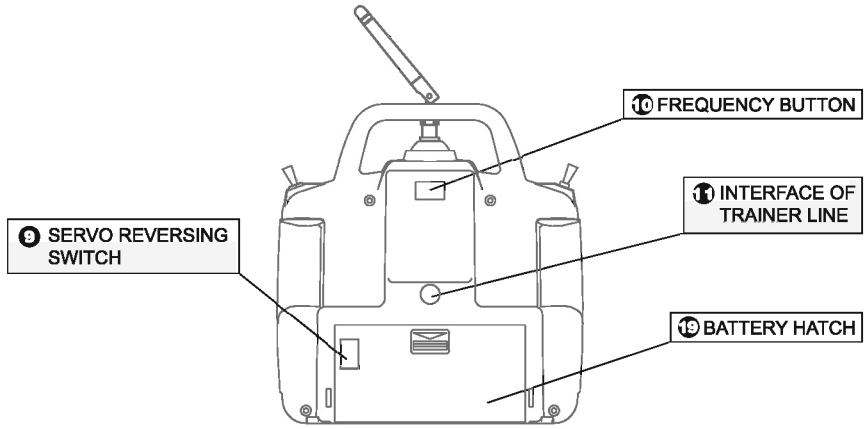
G61 Radio Control System contains a set of Transmitter TG661 and a set of Receiver 661.

1.Function of the Transmitter



(DIAGRAM MODE1 RIGHT THROTTLE CONTROL STICK)

❶ CH1/CH3 AILERON/THROTTLE CONTROL STICK: This control stick can operate the servos connected to channel 1(aileron) and channel 3(throttle) of the transmitter.



❷ AILERON TRIM LEVER: It's used to adjust the neutral position of the aileron.(CH1~CH4 electric trimmer contains 30 grades, which is used to change the neutral position of response of each servo, you will hear the "beeping" sound when you change the trim stick, it will pause in the middle If over the trim scope there will be continuous "beeping" sound.)

❸ THROTTLE TRIM LEVER: It's used to adjust the neutral position of the throttle channel.

❹ ELEVATOR TRIM LEVER: It's used to adjust the neutral position of the elevator.

❺ RUDDER TRIM LEVER: It's used to adjust the center position of the rudder.

❻ ELEVATOR DUAL RATE SWIITCH: Use this switch to "shift" between two elevator control throw settings. The throws are greater ("big rate") and the largest travel is 100%when the switch is "UP". The throws are less ("small rate") and the largest travel is 20%~80% when the switch is "DOWN".

❼ CH2/CH4 ELEVATO/RUDDER CONTROL STICK: This control stick can operate the servos connected to channel 2("elevator") and Channel 4 rudder of the Receiver.

❽ AILERON DUAL RATE SWITCH: Use this switch to "shift" between two aileron control throw settings. The throws are greater ("big rate") and the largest travel is 100%when the switch is "UP". The throws are less ("small rate") and the largest travel is 20%~80% when the switch is "DOWN".

❾ SERVO REVERSING SWITCH: Use this switch to change the direction of response of each servo. Each channel has correspondent reversing switch .when you push the switch of correspondent reversing switch, the correspondent servo will rotate toward opposite direction. After using the reversing function, check all 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!

❿ FREQUENCY BUTTON: It's used to adjust the frequency of the receiver.

⓫ INTERFACE OF TRAINER LINE: It's used to connect FMS with trainer line.

⓬ CH6 RETRACTABLE FLAP SWITCH/TRAINER SWITCH(Only In TG661A): Push this button backward, the flaps will sent out. Push the button to the middle , the flaps will take back. Push the button to the middle and keep connecting with the student's transmitter,so the trainer can assist the student to fly the airplane.(Be sure to connecting the student's transmitter to the trainer's transmitter before using this switch). Switch back to the middle so that it can be disconnected to the student's transmitter.

CHARGING JACK: When using the charging Ni-Mh battery or Ni-CH battery, please charge for the Ni-Mh(Ni-CH) battery when the red light begins flashing.(This product is not contain charger, please buy the charger by yourself).

⑭ POWER LED: If the red and green light are light after turning on, indicating the power of battery is normal. When the power is lower than 9V,the green light begins flashing and send out a intermission beeping sound to remind you the power is not enough. So you have to land the airplane and change the battery of Transmitter or recharge it. When the power is lower than 8V, the green light off and the red light begins to flash, it will send out continuous "beeping" sound to alarm until the transmitter closed. When you hear the alarm, there is still about 4 minutes to land your airplane model before it run out of control .When fly the airplane , you should avoid the voltage of the transmitter lowered to the alarm level.

⑮ RF LED: If RF LED is blue after turning on, it indicates the RF module is working normally. If RF LED isn't light, indicating there is something wrong with the RF module, so you couldn't control the receiver properly and the airplane model couldn't take off.

⑯ ANTENNA: Radiates radio control signals. Suggest adjusting the antenna upward or downward to get the best enhanced radiation effect.

⑰ POWER SWITCH: Used to turn on and turn off the electric power of Transmitter.

⑱ STRAP HOOK: Used to connect the strap ring.

⑲ BATTERY HATCH: After opening the battery hatch, you can install the transmitter batteries. Be sure to use 8 alkaline batteries or 8 Ni-Mh (Ni-Mh) batteries.

⑳ AILERON PROPORTION TRIM LEVER: It's used to adjust the the travel of process servo when the direction is "down" and the throws are less("low rate").The adjustment is 80%~20% of the longest travel process.

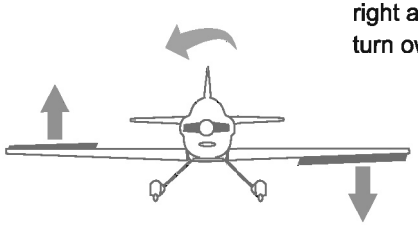
㉑ ELEVATOR PROPORTION TRIM LEVER：It's used to adjust the travel process of servo when the elevator is "down" and the throws are less("low rate").The adjustment is 80%~20% of the longest travel process.

㉒ RETRACTABLE LANDING GEAR SWITCH/CH5: Push the button forward, the landing gear will send out. Push the button backward, the landing gear will take back.

㉓ FIAP TRIM LEVER/CH6: It's used to adjust the flap after the landing gear send out.

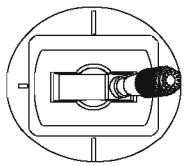
2.Function of the output channel of Transmitter

Aileron



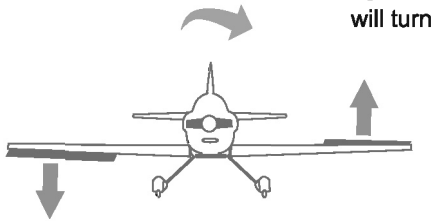
(Front View)

when the "right" control stick is moved to the right, the right aileron will turn upward, and the left aileron will turn ownward, and then the airplane moves to the right.



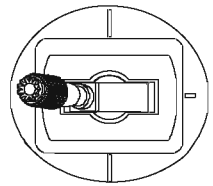
Turn Right

When the "right" control stick is moved to the left, the right aileron will turn downward, and the left aileron will turn upward, and then the airplane moves to the left.

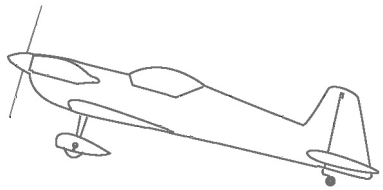


(Front View)

Turn Left



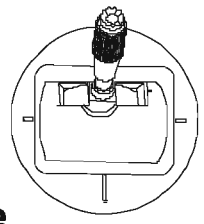
Throttle

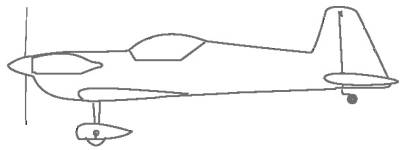


Push the throttle stick forward, the motor speed increase

When the "right" control stick is pushed up, then the electric motor power increase. As a result, the airplane lifts up.

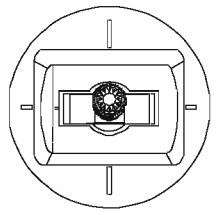
Push up the throttle

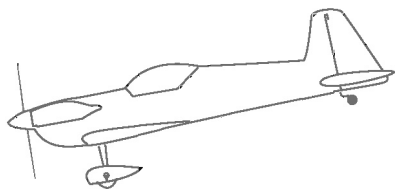




Push the throttle stick in the middle, the motor speed in middle speed

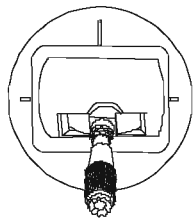
Middle





Push the throttle stick backward, the motor speed decrease.

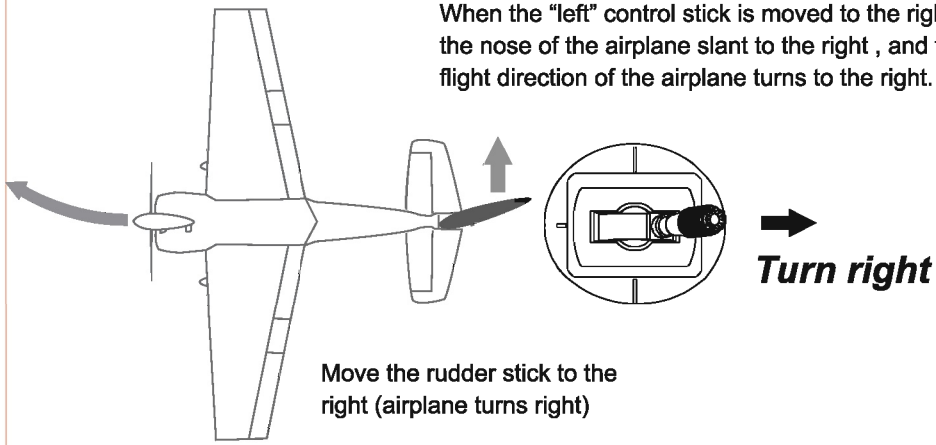
Take back the throttle



When the "right" control stick is pushed back, then the electric motor power decrease. As a result, the airplane descends.

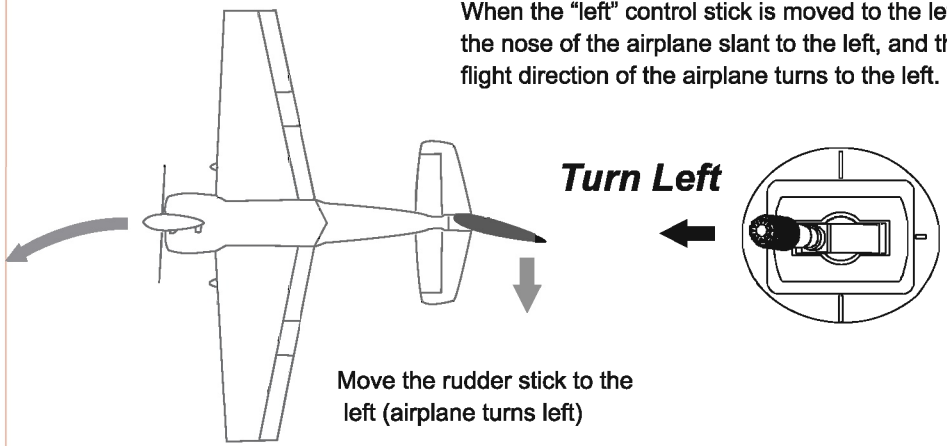
Rudder

When the “left” control stick is moved to the right, the nose of the airplane slant to the right , and the flight direction of the airplane turns to the right.



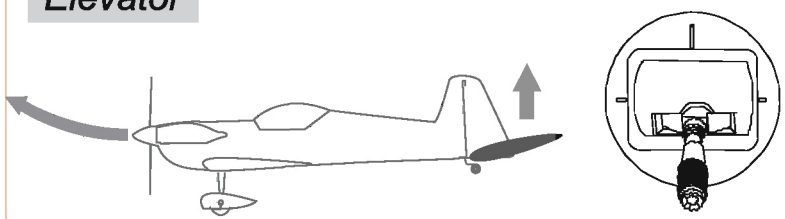
Move the rudder stick to the right (airplane turns right)

When the “left” control stick is moved to the left, the nose of the airplane slant to the left, and the flight direction of the airplane turns to the left.



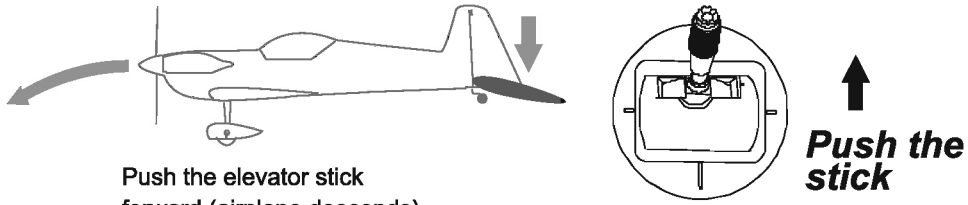
Move the rudder stick to the left (airplane turns left)

Elevator



Pull the elevator stick backward (airplane lifts up)

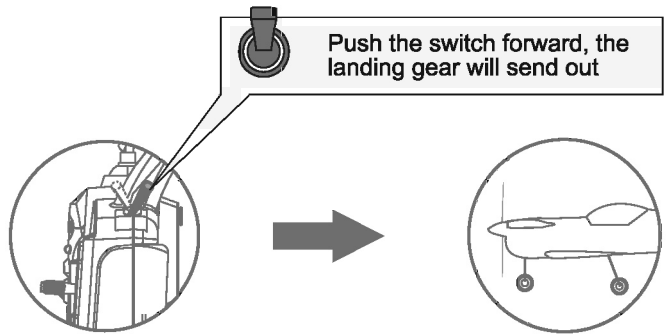
When the elevator stick is pulled backward, the nose of the airplane will tilt upward.

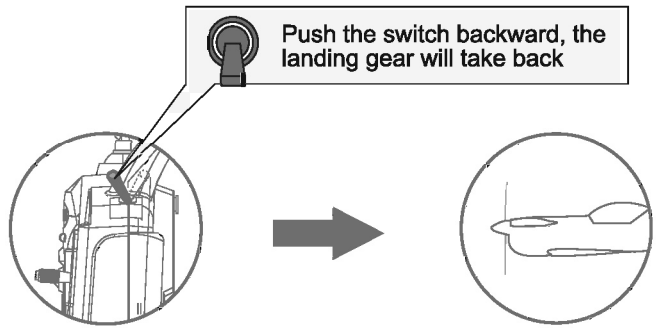


Push the elevator stick forward (airplane descends)

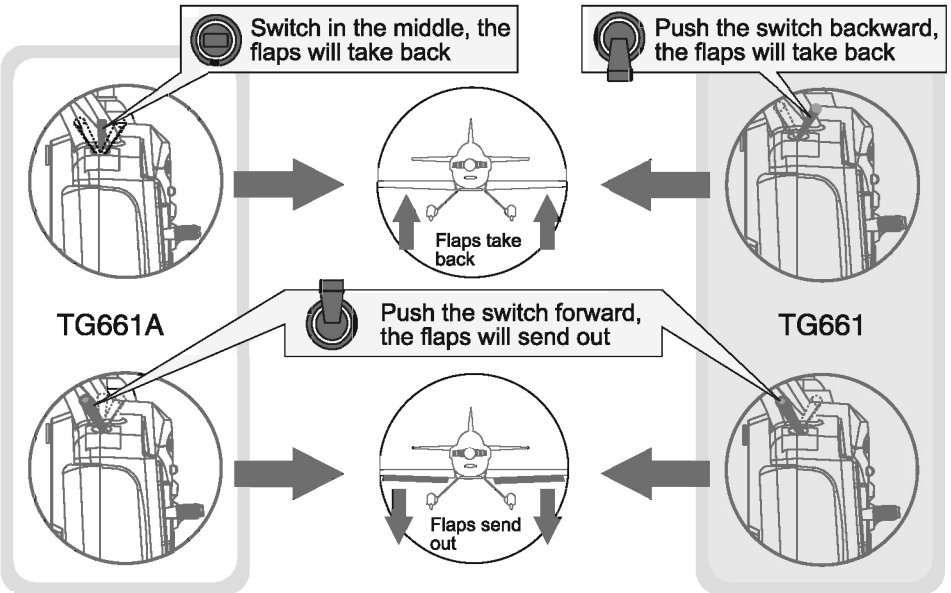
When the elevator stick is pushed forward, the nose of the airplane will tilt downward.

Retractable landing gear switch

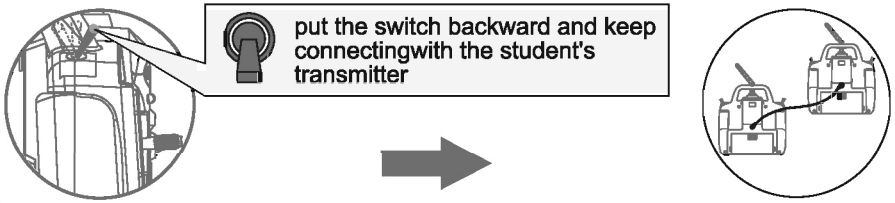




Retractable flaps switch/Trainer switch



Only TG661A MODE Transmitter has trainer function



3.RECEIVER/ANTENNA INSTALLATION

ANTENNA INSTALLATION

The receiver antenna could be installed inside or outside of the model.

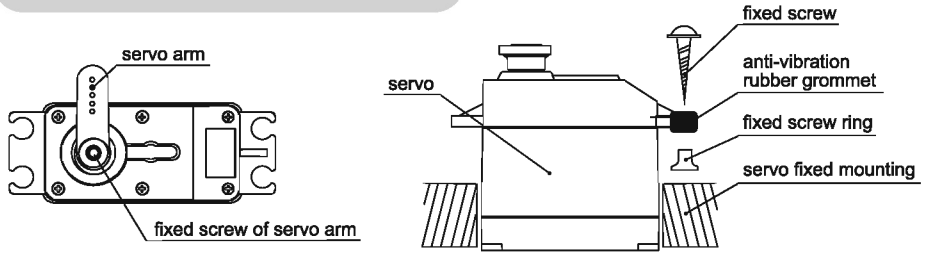
When the antenna is installed inside of the fuselage, please notice that the inside of the fuselage may be interfered by metal, carbon fiber or electric wires. So the antenna must be kept away from servos, switch, batteries and motor. Please don't bind the antenna with servos.

If you want to install the antenna outside of the fuselage, please use rubber grommet or silicon tube to protect from cutting or breaking the internal antenna connections. (Notice: The antenna must be kept away from conductive materials, such as metal, carbon fiber and so on.)

RECEIVER INSTALLATION

The receiver contains precision electronic parts. To protect the receiver, please wrap it with foam rubber, sponge or other anti-vibration material. If wrapped improperly or the package suffered from strong vibration, shock and moisture, intermittent operation or a failure may result. Please wrap the receiver in a plastic bag to protect it from moisture entering.

4.SERVO INSTALLATION



HOW TO SET THE NEUTRAL POSITION OF SERVO

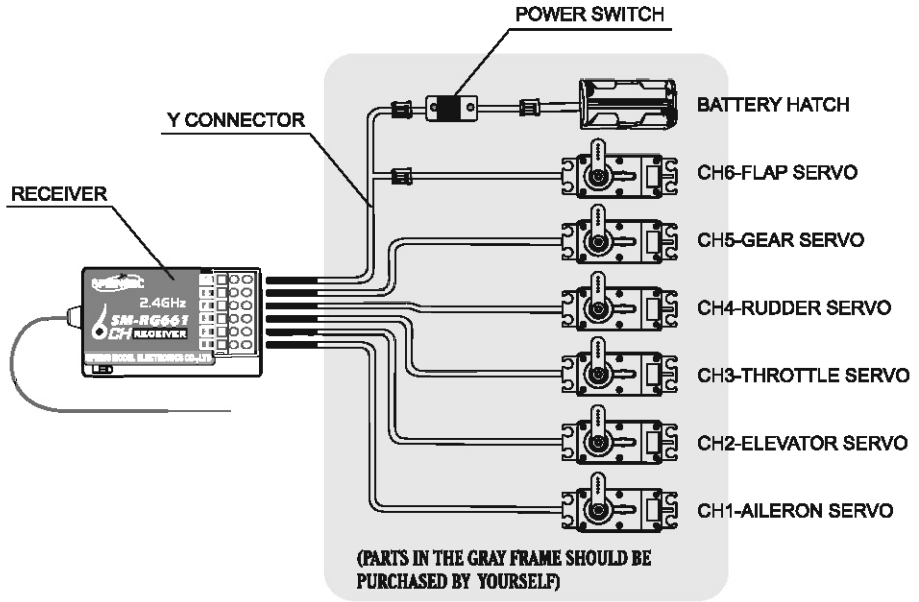
1. Turn on the electric power of transmitter and receiver. Move the control stick and make sure that the rotate direction of servo is right. (If the direction is wrong, please use the reversing servo to set function.)
2. Put the control stick in the center position , and adjust the trimmer neutral position.
3. Install the servo arm on the servo, and keep it is vertical with the pull stick.
4. Connect the pull stick with the servo arm, adjust the length of the pull stick and be sure that the face of servo in the neutral position.

HOW TO SET THE TRIM LEVER

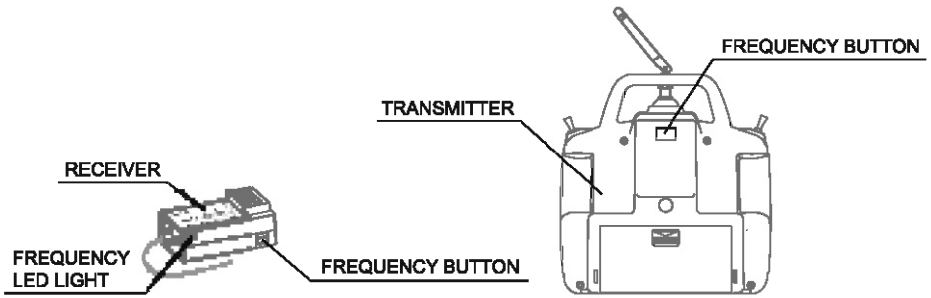
1.After the servo arms, pushrods and servo plate be installed correctly and centered, trim button will be used to adjust the balance of flight. As long as adjust the corresponding trim button according to the direction of flight, pitching and horizontal side deflective side, then the model will fly in straight line or in 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, and place the servo arm and trim lever in the neutral position. Adjust the length of pushrod to keep the angle of servo in the record position. And then you could center the trim lever of transmitter.

5.CONNECTION OF RECEIVER AND SERVO



6.METHODS OF FREQUENCY ADJUSTMENT

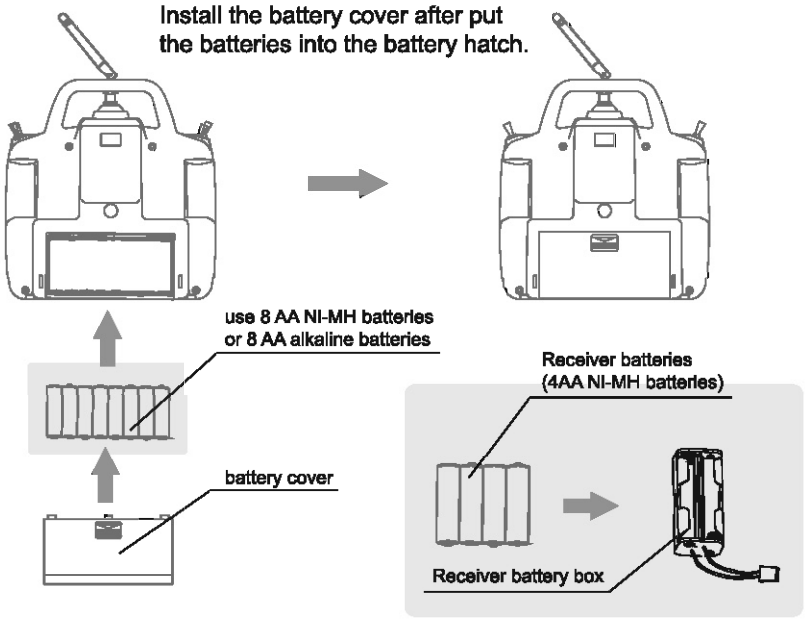


1 Press the frequency button of transmitter, turn on the power switch, and then the blue light on. (Remove the button after turning on)

2 Press the frequency button of receiver continuously, and turn on the power, the LED light won't on, so you can finish the frequency adjustment in 3minutes.

3 After turning on the power of both transmitter and receiver, the blue light of transmitter will keep light continuously, as well as the LED light of the receiver. It indicates the frequency adjustment is successful.

7.BATTERY INSTALLATION



8.NOTICE

When install the battery, please don't mix using the old and new batteries, don't mix different types of batteries, don't charge non-rechargeable batteries, or else it will cause accidents. All the rechargeable batteries labeled "1.2V ×××m AH". If the batteries labeled "1.5V",those are non-rechargeable batteries.

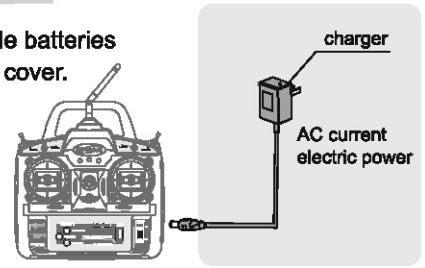
Charging the transmitter battery

1.Make sure that all the batteries are chargeable batteries before charging it, and then close the battery cover.

2.Insert the charger into the charging jack.

3.Plug the nose of the the charger into the charging jack of the transmitter.

4.Charge the batteries according to the requirements of the Introduction manual. Cut off the power after the charging finished.



NOTICE

1.Please charge the battery following the manual provision of the charger bought by yourself.
2.Make sure the charger and battery are on the fire-resistant place or on the ground or far away from the combustibles.
3.Please make sure that there is someone supervising the charger during the charging process.
4.Please check the voltage of the transmitter batteries before the model airplane taking off. Methods: Turn on the power of transmitter first, and then the receiver . Move the control stick, you'd better use the multimeter to test the working voltage of batteries (under the servo working situation), the power couldn't lower than 4.8V. When testing without instrument, If the servo is not powerful or the angle is too small, indicating the power is not enough, you should charge the receiver battery at once.

9.TURN ON AND TURN OFF

All the parts of the control system should be connected well before turning on.

Turn on

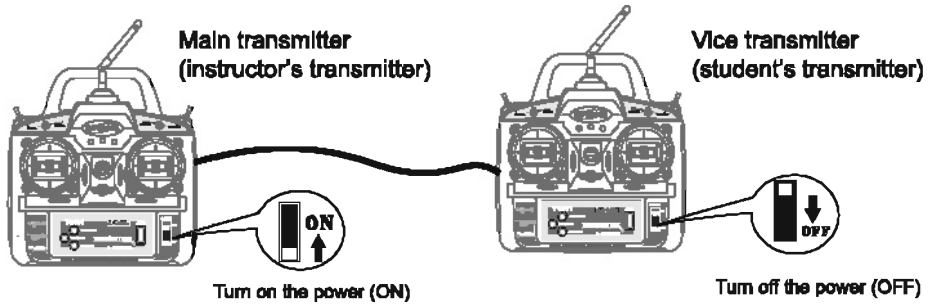
1.Turn on the power switch of the transmitter first.
2.And then turn on the power of the receiver.

Turn off

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

10.TRAINER FUNCTION (Only TG661A has this function)

1.First ,make sure the transmitter which was used by trainer is match with the RTF(ready to fly) model, and have successful trial fly.
2.Set the student's transmitter according to the instructor's transmitter.
3.When the transmitter off, use trainer line to connect the two sets of transmitters, and please make sure it's right to the pore when insert it, don't insert by force.
4.Turn on the power switch of the receiver in the model. Don't turn on the student's transmitter.
5.Turn on the power switch of the receiver in the model. Move the control stick of the instructor's receiver. Check the rotation of servo and make sure it's working normally.
6.Press the trainer switch of the main transmitter , move the control stick (aileron, elevator, rudder) of the student's transmitter. Check the response of the servo and make necessary adjustment. Make sure the control situation of the student's transmitter is in line with the instructor's transmitter. Methods of checking: Push the switch backward and forward again and again. Check to see whether each trim of the instructor's transmitter is in line with the trim of the student's transmitter .If the servo in the model remain stationary after pressing the trainer switch ,indicating the trimmer setting of the instructor's transmitter is in line with the student's transmitter. If the controls do not remain stationary, indicating that the trim settings on the student's radio are not match with those on the instructor's radio. Adjust the student's trims as necessary. You can get into practical training fly after the above adjustment finished.



Trainer line
ITEM NO.6414010

11.Specifications

Transmitter: TG661
Transmission frequency: 2.4GHz~2.483GHz
Control method: FSK
Control system: PPM
Operating system: 6CH
Power: 8 AA NI-MH/Alkaline batteries
Current: <200mA
Size: 201mm×192mm×60mm
Trimmer method: electric trim
Temperature: -20 °C~70 °C

Receiver: RG661
Receiving frequency: 2.4GHz~2.483GHz
Control method: FSK
Control system: PPM
Power: 4.8V~6V
Current: <20mA
Weight: 6.8g
Size: 34mm×20mm×14mm
Temperature: -20 °C~70 °C