

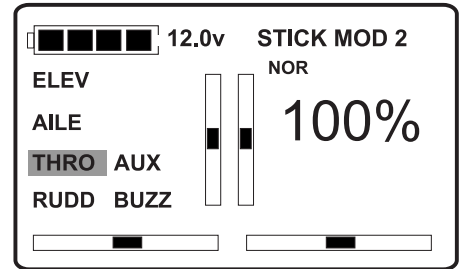
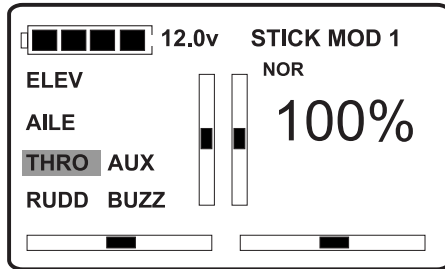


05

Transmitter setup

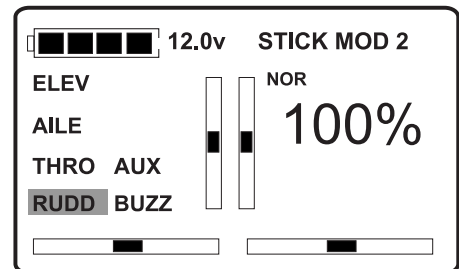
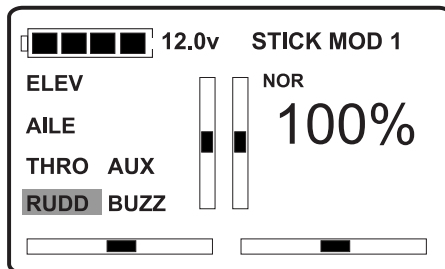
THRO reverse setup

Press ENT to enter the setting status, and both ELEV and the current reverse status NOR or REV are together flashing. Press UP or DN to flash THRO. Both THRO and its current reverse status NOR or REV are together flashing. Press R or L to let NOR flashing, and then press ENT to confirm. Press EXT to exit .



RUDD reverse setup

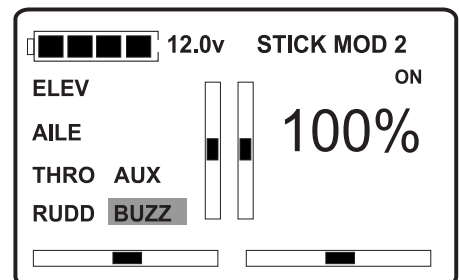
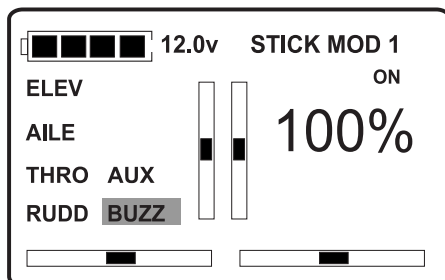
Press ENT to enter the setting status, and both ELEV and the current reverse status NOR or REV are flashing. Press UP or DN to flash RUDD. RUDD and its current reverse status NOR or REV are together flashing. Press R or L to let NOR flashing. Press ENT to confirm, and then press EXT to exit .



5.1.3 Buzzer setup

The buzzer setup includes two status: ON or OFF. Below is the setting method:

Press ENT to enter the setting status, and both ELEV and the current reverse status NOR or REV are flashing. Press UP or DN to flash BUZZ. BUZZ and its current switch status ON or OFF are together flashing. If want to change the switch status, press R or L to make ON flashing, and then press ENT to confirm and save. Press EXT to exit.



5.2 DEVO-6/7/8S/10/12S(optional radio) settings

5.2.1 Type:Helicopter

5.2.2 Swash type:1 Servo Normal

5.2.3 Reverse switch settings

DEVO-6	
Elevator	Normal
Aileron	Normal
Throttle	Normal
Rudder	Normal
Gyro	Normal
Pitch	Normal

DEVO-7	
ELEV	NORM
AILE	NORM
THRO	NORM
RUDD	NORM
GEAR	NORM
PITCH	NORM
GYRO	NORM

DEVO-8S	
Elevator	Normal
Aileron	Normal
Throttle	Normal
Rudder	Normal
Gear	Normal
Pitch	Normal
Gyro	Normal
AUX3	Normal

DEVO-10	
Elevator	Normal
Aileron	Normal
Throttle	Normal
Rudder	Normal
Gear	Normal
Pitch	Normal
Gyro	Normal
AUX3	Normal
AUX4	Normal
AUX5	Normal

DEVO-12S	
Elevator	Normal
Aileron	Normal
Throttle	Normal
Rudder	Normal
Gear	Normal
Pitch	Normal
Gyro	Normal
AUX3	Normal
AUX4	Normal
AUX5	Normal
AUX6	Normal
AUX7	Normal

5.2.4 Gyro sensor

Mode	Manual
Switch	MIX SW
Pos 0	50.0%
Pos 1	50.0%
Pos 2	50.0%



05

Transmitter setup

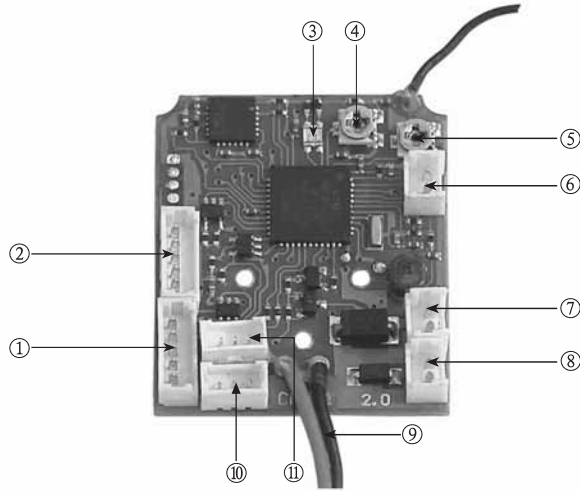


06

Setup of the RX2456V-D receiver

6.1 RX2456V-D receiver features

- (1) The RX2456V-D receiver uses 2.4GHz spread spectrum technology with automatic scanning, code paring and LED bind indication functions.
- (2) The use of a high performance receiver dramatically reduces the possibility of signal loss and ensures the accuracy and reliability of signal reception.
- (3) 4-channel output makes multiple functions with fine control available.
- (4) Gyro sensitivity offers fine and customized adjustments to relevantly meet the habits of your operation.

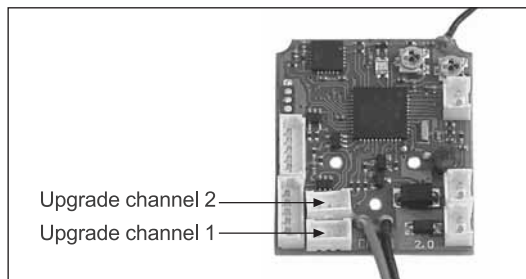


6.2 Function of receiver

S/N	Name for short	Full name	Function
1	ELEV	Elevator servo	Connects to the elevator servo and transmits the control signal of elevator servo.
2	AILE	Aileron servo	Connects to the aileron servo and transmits the control signal of aileron servo.
3	Signal indicator	Signal indicator light	Displays the status of signal reception and binding.
4	ELEV/AILE-GS	Elevator/aileron gyro sensitivity adjust knob	Adjusts the elevator/aileron gyro sensitivity, changes the flight effect.
5	RUDD GS	Rudder gyro sensitivity adjust knob	Adjusts the rudder gyro sensitivity, changes the flight effect.
6	Temperature Sensor	Temperature Sensor	Connect with Temperature sensor to test the motors' temperature.(A Telemetry Radio is a must)
7	MAIN MOTOR	Main motor	Connects to the main motor and transmits the control signal of main motor.
8	TAIL MOTOR	Tail motor	Connects to the tail motor and transmits the control signal of tail motor.
9	BATT.	Power cable	Connects to the battery(3.7V)
10	Upgrade channel 1	Upgrade channel 1	Reserve for upgrade.
11	Upgrade channel 2	Upgrade channel 2	Reserve for upgrade.

6.3 Adjustment of receiver

- (1) Receiver indicator LED status: A quick flash means the signal is being received (binding in progress); a solid light means the signal was received correctly (binding was successful); a slow flash means no signal was received (binding failed).
- (2) ELE/AILE gyro sensitivity adjust knob: CW rotating(+) increases the gyro sensitivity, it will increase the balance of the helicopter (the body of the helicopter not shake will be required); CCW rotating(-) decreases the gyro sensitivity, it will decrease the balance of the helicopter.
- (3) RUDD gyro sensitivity adjust knob: CW rotating(+) increases the gyro sensitivity, it will decrease the tail steering velocity; CCW rotating(-) decreases the gyro sensitivity and tail steering velocity will be increased.
- (4) Clear fix ID in receiver: Insert plug terminal into Upgrade channel 1 on receiver to clear fix ID memory and disconnect plug terminal when the indicator on receiver start to flash.
- (5) Receiver upgrade: Plug the three colored cable (black, red and blue) into upgrade channel 1 and plug the tree colored cable (black, red and yellow) into upgrade channel 2 (fixed ID may clear after upgrade), please see below illustration.



6.4 Channel connection of receiver

S/N	Receiver terminal	Connection method	Wire direction
1	ELEV	Connects to the plug of elevator servo signal wire	The black wire is facing up
2	AILE	Connects to the plug of aileron servo signal wire	The black wire is facing up
6	Temperature Sensor	Connects to the plug of temperature sensor signal wire	The black wire is facing up
7	MAIN-MOTOR	Connects to the plug of main motor signal wire	The black wire is facing up
8	TAIL-MOTOR	Connects to the plug of tail motor signal wire	The black wire is facing up

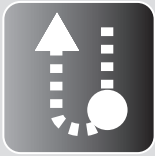
6.6 Matters needing attention

- (1) All the signal wires should be connected in the correct way. Misconnection will result in failure to receive signal and even damage to the receiver.
- (2) Use the special adjustment pen supplied to rotate the gyro sensitivity dial in order to avoid damaging the adjustment dials.
- (3) The helicopter must be placed in horizontal level when matching code.
- (4) Please always strictly follow the sequence of "power on the transmitter first, then connect the battery". Turn on the transmitter, then connect the battery to the receiver within 10 seconds, the red light on the receiver will begin to flash. The flashing red light will turn to a solid red light for 1-3 seconds, after the transmitter finishes pairing with the receiver, the red light will flash again. If the red light then turns solid red and a mechanical BEEP sound can be heard from the servos, it means the receiver has successfully received the signal from the transmitter and their codes match.



06

Setup of the RX2456V-D receiver



07

Servo setup and adjustment

7.1 Specification and function of servo

7.1.1 Specification of servo

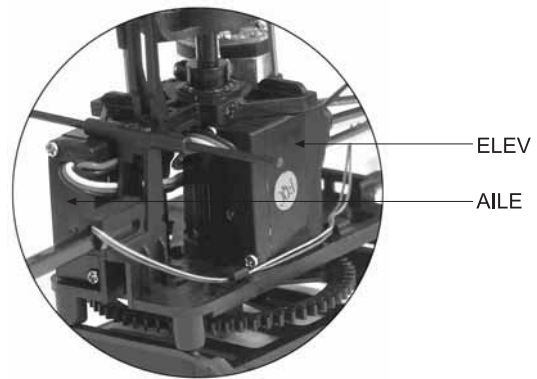
	Weight	Voltage	Speed	Dimension
WK-02-5	2.65g	3.0~4.5V	0.12sec/60°	16.5×6.8×15.7mm

7.1.2 Basic function of servo

A servo is an electro-mechanical device that converts a signal from the receiver into mechanical movement. By means of a sensor the accurate control of its direction and speed is possible.

7.2 Connection and adjustment of servos

7.2.1 Connection of servos



S/N	Receiver terminal	Connection method	Wire direction
1	ELEV	Connects to the plug of elevator servo signal wire	The black wire is facing up
2	AILE	Connects to the plug of aileron servo signal wire	The black wire is facing up

7.2.2 Adjustment of servos

Before departure from the factory, all the servos have been correctly adjusted and are locked in the correct position. In general no adjustment is needed.

7.2.3 Matters needing attention

- (1) All the plugs should be correctly connected. An incorrect connection will cause the servos not to function or to operate in a direction which is different from the one required.
- (2) Please ensure that the travel extents of the servo bell cranks are all within the permitted maximum range after maintenance, replacement or adjustment of servo linkages. Failure to do this could cause a servo to jam at maximum travel causing loss of control, damage and possibly injury.

8.1 Installation of battery pack

Install the battery pack into the battery compartment in the direction of the arrow.

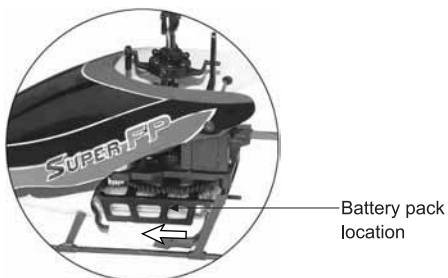


Diagram of battery installation.

8.2 Turn on the power

8.2.1 Turn on the power



1. Install the battery pack in the battery compartment.



2. Turn on the power of transmitter.



3. Pull down the throttle stick and throttle trim of transmitter to the lowest position, and then move the elevator trim, aileron trim, and rudder trim at the neutral positions, respectively.



4. Connect the power cable of the helicopter and wait to receive the signal from the transmitter. The helicopter should be placed on flat ground or surface during code pairing (binding). Do not move the transmitter sticks or the helicopter until binding has completed.

8.2.2 Matters needing attention

- (1) Please always strictly follow the sequence of "power on the transmitter first, then connect the battery". Turn on the transmitter, then connect the battery to the receiver within 10 seconds, the red light on the receiver will begin to flash. The flashing red light will turn to a solid red light for 1-3 seconds, after the transmitter finishes pairing with the receiver, the red light will flash again. If the red light then turns solid red and a mechanical BEEP sound can be heard from the servos, it means the receiver has successfully received the signal from the transmitter and their codes match.
- (2) If more than 10 seconds passed before the power cable was connected binding will fail. When binding fails, disconnect the battery, turn off the transmitter and repeat step (1).



08

Steps of flight



08

Steps of flight

8.2.3 Trouble shooting a flashing receiver LED after connecting the power cable

Possible causes	Solutions
Code pairing failed.	Turn transmitter off then on and re-connect helicopter power cable.
The throttle trim and throttle stick of transmitter are not at the lowest position.	Pull down the throttle trim and throttle stick to the lowest position and re-code pair.
The transmitter battery is low or empty.	Replace transmitter battery and re-code pair (re-bind).
The helicopter battery is low or empty.	Replace the helicopter battery with a fresh pack and re-code pair.
No function in receiver or transmitter.	Replace faulty receiver or transmitter and re-code pair.

8.3 Adjustment before flight

Warning: Disconnect the power cable of main motor before adjustment for the sake of pilot's safety.

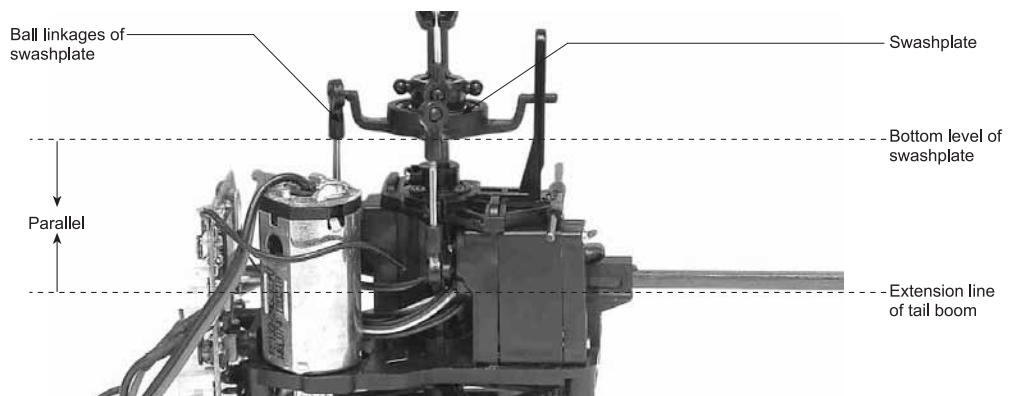
Matters needing attention: Before departing the factory, all of the components have been correctly adjusted. Normally it is not necessary to make any adjustment. However, due to disturbance during long-distance transportation, some joints, screws or parts may be loose or even damaged. For safety's sake, please refer to section 2.3 - "attention before flight" and strictly follow the helicopter checks described.

8.3.1 Adjustment of swashplate

Inspection of swashplate

Warning: Disconnect the power cable of main motor before adjustment for the sake of pilot's safety.

Place your helicopter on a spacious flat ground. Move the transmitter throttle stick and throttle trim to the lowest position. Move the elevator trim, aileron trim, and rudder trim to the neutral position. Turn on the transmitter first and then connect the power cable of the helicopter. After the LED on the receiver stops flashing and the beeps of the servos are heard, the transmitter and receiver are successfully connected. Next, check if the bottom plane of the swashplate is parallel to the longitudinal axis (front to back) of the helicopter - the extension line of the tail boom. Also check if the plane of the swashplate is parallel to the lateral axis (left to right) of the helicopter.



Adjustment of swashplate

Warning: Disconnect the power cable of main motor before adjustment for the sake of pilot's safety.

Servo bellcranks must be horizontal at mid throttle. Swashplate must be at center of travel at mid throttle.

If during the check above it is found that the swashplate is not level with either axis it can be adjusted using the following 2 steps:

- (1) Adjust the servo bellcrank. First disconnect the helicopter power cable and turn off the transmitter. Unscrew the screw in the bellcrank of the servo and remove the bellcrank. Re-turn on the transmitter and re-connect the helicopter power cable in sequence. After code pairing, replace the servo bellcrank so it is horizontal and check the swashplate is now level. If the swashplate is still angled or not at the center of travel, replace and re-tighten the bellcrank screw and move to step (2).
- (2) Adjust the servo ball linkage. Adjust the length of the ball linkages of each servo until the swashplate is level and in the centre of the range of travel.

8.4 Adjustment of Main rotor blades

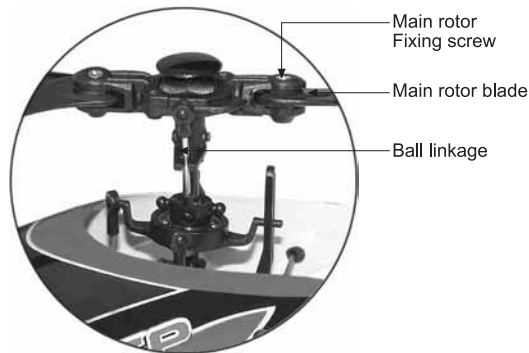
8.4.1 Inspection of Main rotor blades

Check the following before flight or if the helicopter vibrates during flight:

- (1) Check if the cross-head fixing screws in the main rotor blade grips are over-tight.
- (2) Check if the main rotor blades are able to swing a little horizontally but not flap vertically.
- (3) Check if the main blades are level when rotating (tracking).
- (4) Check if the main blades are correctly balanced.

8.4.2 Adjustment of Main rotor blades

- (1) The main rotor fixing screw should be tight enough to prevent the blade flap vertically but loose enough to allow the blade to swing slightly in the grip.
- (2) If the blades are not in line with one another, hold the blade tips firmly and pull them into line.
- (3) If the main rotor blades occur blade tracking, please shorten the ball linkage of the higher one or lengthen the ball linkage of the lower one.



08

**Steps of
flight**



09

Flight over



Step 1: disconnect the power cable of the helicopter.



Step 2: turn off the transmitter.



Step 3: Remove the battery pack.