



Welcome to use the **WK-2801** transmitter

WK-2801

User Manual

Note: Pls carefully read the the manual before using and take good care of it so that you may readily refer to it whenever necessary.



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Part one: general information

1.0 Foreword

Walkera's WK-2801 adopts 2.4G spectrum technology with the functions of automatic code pairing, ID assignment and high ability of anti-jamming. It also has the function of wireless copy so that you will get out of the trouble of wire connection. 4 hotkeys can be set to get fast access to the desired screen. It has modes for both helicopters and airplanes to meet your requirements for different models.

You must enter the Function Menu to select the correct model before doing the other settings. (See 7.2.2 Model selection.)

1.1 Important Statements

- (1) The transmitter is suitable for experienced radio controlled helicopter modelers beyond 14 years old.
- (2) Using legal ground for operating the model plane is a must.
- (3) We assume no liability for the use of this product.
- (4) Please contact our local distributor for technical support and after service.

1.2 Safety Needing Attention

- (1) Far away from obstacle and people

RC helicopter in flight is uncertain of flight speed and status, which potential risk exists in, when flying, please keep your RC helicopter far away from people, high buildings, high-tension line, etc, and avoid operating in rain, storms, thunder and lightning.

- (2) Away from humidity environment

RC helicopter should be kept away from humidity and vapor because it is composed of complicated precise electronic elements and mechanic parts.

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(3) Proper operation

Please use Walkera original spare parts to upgrade, modify or maintain your helicopter in order to assure its safety. Please operate your helicopter within the range of functions permitted. It is forbidden to use out of the safety laws or regulations.

(4) Safety operation

Please fly your helicopter according to your body status and flight skills. Fatigue, listlessness and miss-operation will increase the possibilities of accidental hazard.

(5) Away from heat source

The inside of the transmitter is composed of many precise electronic components and mechanical parts. Keep it far away from heat sources and sunshine to avoid distortion, or even damage caused by high temperature.

(6) Correct Charging Method

When using the nonrechargeable battery, it is prohibited to charge the battery by the CHG jack.

1.3 Attention before flight

(1) Ensure the battery packs of both transmitter and receiver are fully charged (saturated).

(2) Ensure both the throttle stick and the throttle trim of your transmitter stay at the lowest positions before operation.

(3) Please strictly obey the order of turn-on and turn-off before operation. When starting your flight, turn on your transmitter first, then connect the battery to the heli. When turning off the heli, disconnect the battery first, then turn off the transmitter. An upset in the order of connection may cause your helicopter to lose control. Please cultivate a correct habit of turn-on and turn-off.

(4) Ensure the directions and actions of the servos are correct when executing commands of the transmitter. Using a broken servo will result in unforeseen dangers.

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2.0 Features

2.1 Transmitter WK-2801

1. The WK-2801 adopts 2.4G spectrum technology and features automatic code pairing and ID assignment.
2. LCD display of the WK-2801 is simple to understand and easy to set.
3. The transmitter appearance is ergonomically designed and its large LCD display has white backlight with easy-to-read graphics.
4. The length and tension of the control sticks can be adjusted and it is convenient to switch between modes 1 and 2.
5. The WK-2801 supports both helicopter and plane. In helicopter mode, there offers three flight modes, each of which is capable of free setting and adjusting parameters in order to suit the various requirements for F3C or 3D aerobatic flights.
6. Capable of wireless data transfer between two transmitters.
7. Four adjustable hot keys facilitate easy entry into the set menu.
8. Eight model memory storage.
9. Gyro sensitivity adjustment set by transmitter, and convenient programmed hover and aerobatic flights.

2.2 Receiver RX-2801

1. RX-2801 adopts 2.4G spectrum technology that features fast reaction and strong anti-jamming protection.
2. Double receiving circuits effectively assure the stability of receiving signal.
3. The Single Chip Micryoco as CPU provides super-strong analysing ability.
4. The RX-2801 maintains the frequency and the ID memories when it's changing a new battery pack with the transmitter powered on.

3.0 Specifications

3.1 Transmitter Specification:

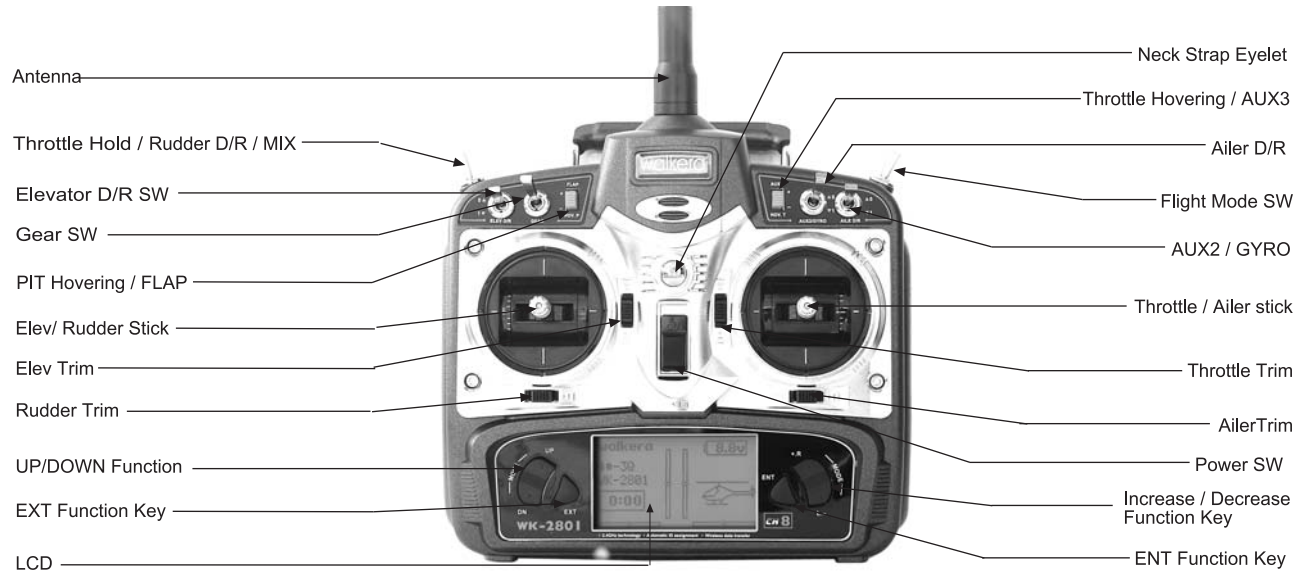
Encoder-----	8-channel micro computer system
Frequency -----	2.4G spread spectrum
Output Power-----	≤ 10Mw
Current Drain-----	≤ 120mA
Power Source -----	1.2V × 8NiCad(9.6V600mAh) or 1.5V × 8 AA dry batteries
Output Pulse -----	1100-1900Ms(1500 Neutral)

3.2 Receiver Specification:

Type -----	Type: 2.4G 8 channel
Sensitivity-----	95dbm
Frequency Interval-----	≥ 4M
Weight -----	10g
Dimension -----	39 × 28.5 × 14.5mm
Receiver Battery -----	4.8V 110mAh

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4.0 Face



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4.1 Back

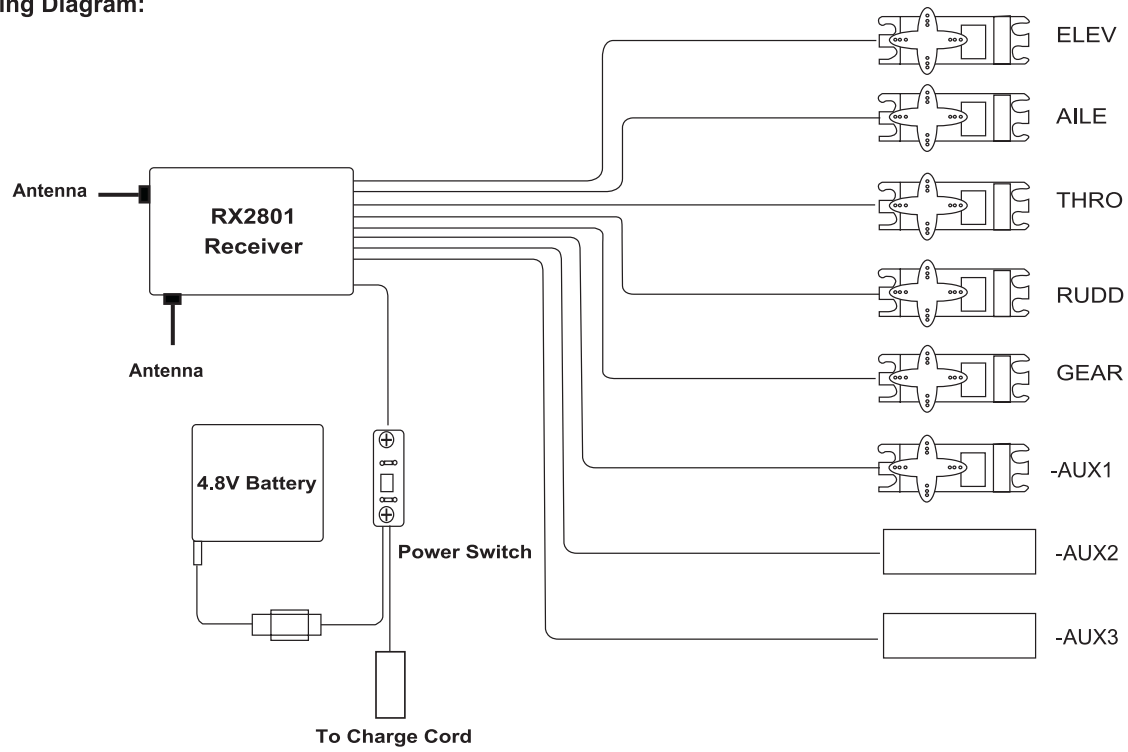
Trainer Jack : for simulator flight via your computer (You need the software and softdogs available in hobby stores.)

Charging Jack: Input Voltage: 12V; Current: 50-100mA; It's only fit for the rechargeable batteries. The charging function is prohibited when using the non-rechargeable batteries.



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4.2 Wiring Diagram:



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4.3 WK-2801 Input Key Function

EXT: Resetting key. Press EXT to exit the main menu.

ENT: Confirmation key. Press ENT to access the system or the function mode.

·UP: Moves the cursor up to the next Function selection.

·DN: Moves the cursor down to the next Function selection.

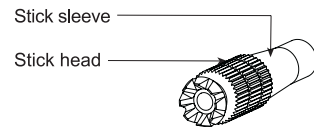
+R: Moves the cursor right to increase the setting value.

L-: Moves the cursor left to decrease the setting value.

5.0 Control Stick Length Adjustment

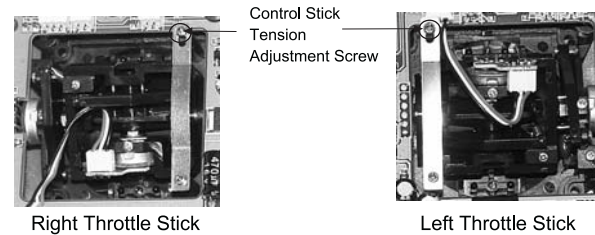
Prolong the stick length: CCW rotate the stick head until the length you hope, and then CCW tighten the stick sleeve;

Shorten the stick length: CW rotate the stick sleeve until the length you hope, and then CW tighten the stick head.



5.1 Control Stick Tension Adjustment

Remove the 6 screws in the back cover of WK-2801, and remove the transmitter back cover (Be careful not to break the wires). Then use a Phillips screwdriver to adjust each screw on the throttle arresting spring for the desired tension (Note: CW rotate to tighten the stick and CCW rotate to loosen).



5.2 Neck Strap Usage

The neck strap can be hooked on the face of the WK-2801 transmitter. The Hook located at the center helps to get optimal balance of the transmitter.



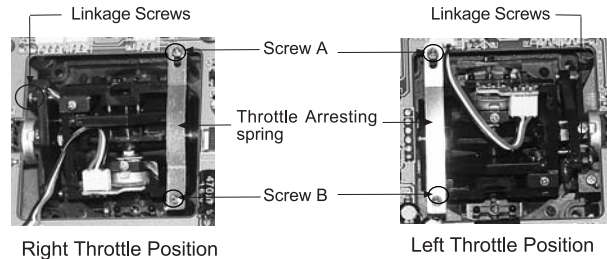
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5.3 Mechanical switch between left-hand throttle and right-hand throttle

5.3.1 Right-hand throttle changed to left hand

A. The stick position change

Remove the battery pack and the 6 fixing screws in the back of transmitter, and then remove the transmitter back case (Be careful not to break the wires inside). Use a Phillips screwdriver to loosen the linkage screws, screw A, screw B and the throttle arresting spring in the right throttle position. Then mount them to the corresponding positions in the left throttle position. Adjust screw A according to the personal hand feeling (adjust the tension of the throttle stick). Then install the transmitter back case.



B. The data switch

Press ENT to enter the Function Menu. Press UP or DN to select STICK and access by pressing ENT. In the STICK menu, press UP or DN to select STICK. And press the +, R or L, - key to change TH-RIGHT into TH-LEFT and then save the change by pressing ENT.

STICK	
→ STICK	TH-RIGHT
COMPTB	2801
IDECODE	RANDDM

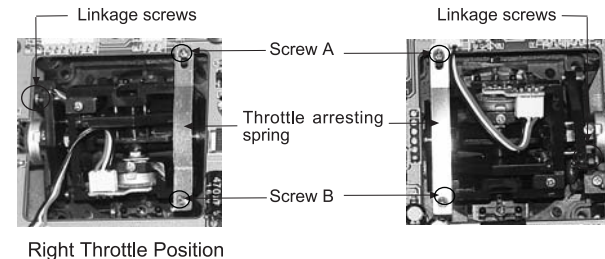
STICK	
→ STICK	TH-LEFT
COMPTB	2801
IDECODE	RANDDM

The switch from right hand throttle to left is completed and your WK-2801 is ready for normal flying.

5.3.2 Left-hand throttle changed to right hand

A. The stick position change

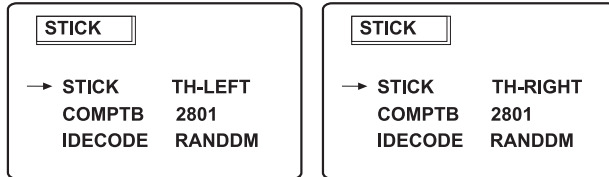
Remove the battery pack and the 6 fixing screws in the back of transmitter, and then remove the transmitter back case (Be careful not to break the wires inside). Use a Phillips screwdriver to loosen the linkage screws, screw A, screw B and the throttle arresting spring in the left throttle position. Then mount them to the corresponding positions in the right throttle position. Adjust screw A according to the personal hand feeling (adjust the tension of the throttle stick). Then install the transmitter back case.



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B. The data switch

Press ENT to enter the Function Menu. Press UP or DN to select STICK and access by pressing ENT. In the STICK menu, press UP or DN to select STICK. And press the +, R or L, - key to change TH-LEFT into and TH-RIGHT then save the change by pressing ENT.



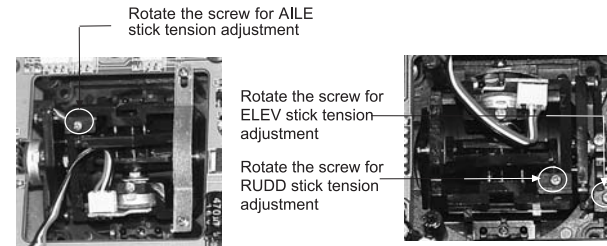
The switch from left hand throttle to right is completed and your WK-2801 is ready for normal flying.

Note: Pay attention to the strength when removing and adjusting the screws. Excessive strength may damage them.

5.4 Stick tension adjustment

A. Stick tension adjustment of right-hand throttle

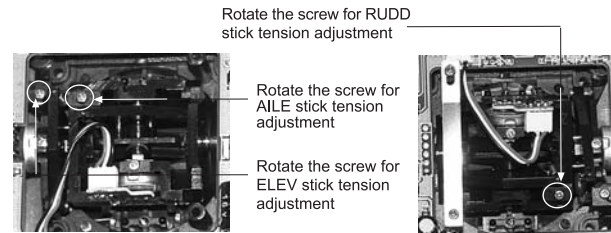
Remove batteries and fixing screws in the cover of WK-2801 and open the cover (don't break wires inside). Use a Phillips screwdriver to rotate the screw which is corresponding to the relative stick shown as the pictures below: clockwise rotation increases the tension and counterclockwise rotation decreases the tension.



Adjustment method of right-hand throttle

B. Stick tension adjustment of left-hand throttle

Remove batteries and fixing screws in the cover of WK-2801 and open the cover (don't break wires inside). Use a Phillips screwdriver to rotate the screw which is corresponding to the relative stick shown as the pictures below: clockwise rotation increases the tension and counterclockwise rotation decreases the tension.



Adjustment method of left-hand throttle

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5.5 Hot-Key Setting

The WK2801 offers the Hot-key function to handle the frequent setting pages as hot keys (shortcut key). If the pilot, for example, wants to set the servo Travel Adjustment (refer to Travel Adjustment) as a Hot Key, he just presses EXT and the corresponding hot key to get the desired page after the servo Travel Adjustment is set up. The function is capable of setting up to 4 Hot Keys. The correct method of setting hot keys is shown as follows:

In Func. Menu select MDSET and press ENT to enter its submenu. Press UP or DN to move the cursor to the appointed item and press ENT to enter its function page. Two fingers simultaneously press UP or DN to enter Hot Keys page, and press UP or DN to select the hot key and press ENT to confirm. The corresponding relationship of hot keys to the physical keys in WK-2801 is shown as below:

Hot keys	EXT-UPER	EXT-DOWN	EXT-LEFT	EXT-RIGHT
Physical keys	UP	DO	+R	L-

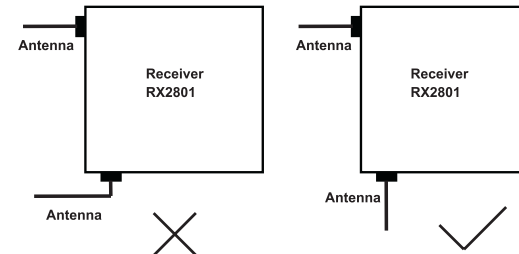
Hot - Keys

- . EXT - UPER
- . EXT - DOWN
- . EXT - LEFT
- . EXT - RIGHT

6.0 Installation Requirements

It is important to correctly mount your radio system in your model. Below are some advices on how to install your equipments.

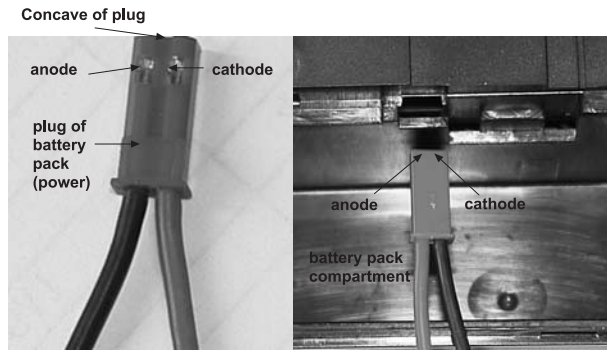
1. Wrap the receiver with 10mm thick foam and fix it with a rubber band or string on your helicopter or plane. It helps protect the receiver.
2. It is necessary for you to use rubber grommets and copper sleeves to isolate the vibration from the main body. The mounting screws cannot be over-tightened. Otherwise, the rubber grommets will be distorted and decrease the vibration absorption effect.
3. When mounting the servos, make sure the servos' bellcranks can move freely over their whole travel range and ensure the control linkages don't touch or impede the movement of the servos.
4. If installing various switches, keep them far away from the engine tuned pipe and high vibration sources. Ensure all the switches move freely over their whole range.
5. Don't make the receiver antennas wrapped or parallel.



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6. Mount the transmitter battery pack as the following picture:

When inserting the plug of battery pack, aim the concave of the plug at the concave of socket.



FCC WARNING

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: The manufacturer is not responsible for and radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.