DEVO 12E

Professional 12 channel transmitter

walkera


# User Handbook

## Specifications:

Encoder: 12-channel micro computer system

Current drain: ≤200 mA (100 mW)

Power supply: 5# Battery 8 x 1.5V

Frequency: 2.4GHz DSSS

Output power: ≤100 mW

Output pulse: 1000—2000 uS (1500Ms Neutral)

## Features:

RF transmitter powers adjustable

12 channel multifunctional settings

Helicopter/Airplane /Glider

Multi languages optional

Both auto code binding and fixed code free settable

4 stick modes switchable

Telemetry function

USB update online

# Contents

## Part one: General information



## Part two: Helicopter

## Part three: Airplane



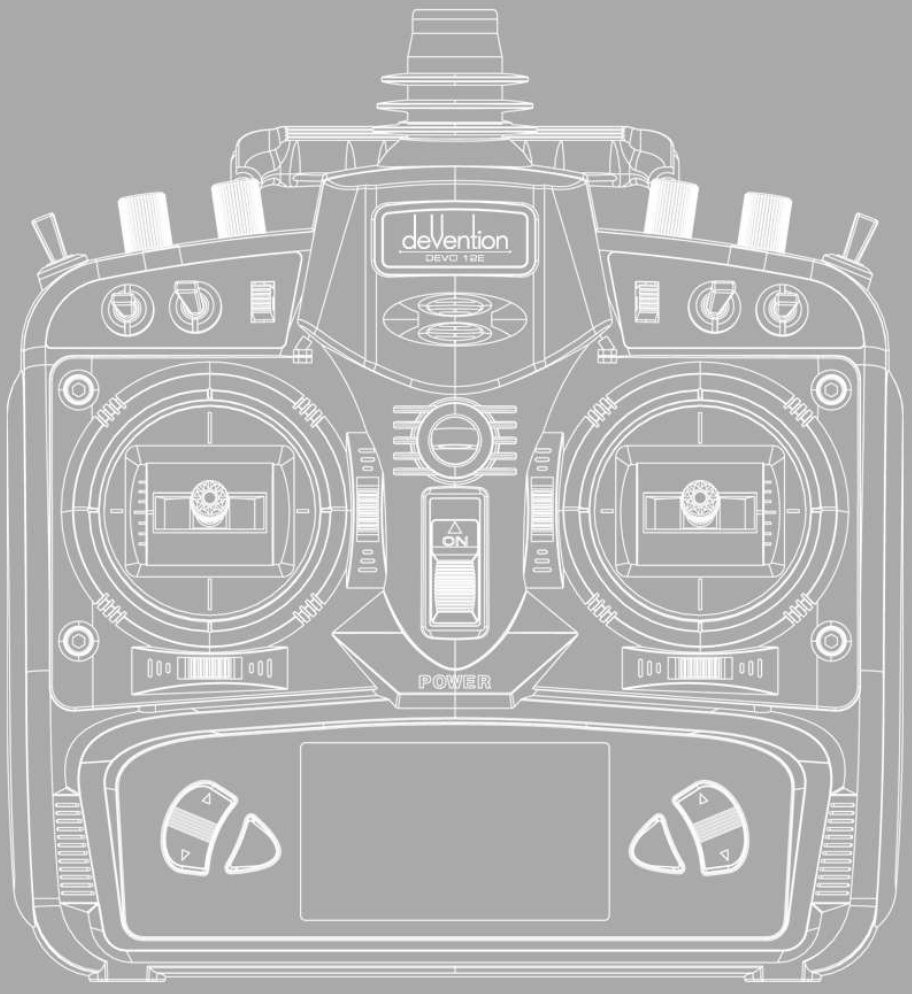
## Part four: Glider

deVention

DEVO 12E

# Part one General information

DEVO 12E takes 2.4 GHz Direct Sequence Spread Spectrum (DSSS) technology and features automatic ID binding, automatic ID assignment,and also features fixed ID set by yourself. The usage of wireless copy function keeps you away from the trouble in wire link-up. Three mode types of helicopter, airplane are available to meet your requirements for different models. Online update via USB ensures a transmitter in hand not to be out of date and makes it full of vigour.



# 1.0 General information

### 1.1 Important statements

(1) The transmitter is suitable for experienced pilots beyond 14 years old.
(2) Flying the model aircraft in approved ground is a must.
(3) We are not responsible for any safety caused by operation, usage or control once the transmitter is sold out.
(4) We consign our distributors to offer technical support and service after sale. Please contact the local distributors for problem solutions caused by usage, operation, maintenance, etc.

### 1.2 Safety needing attention

(1) Far away from obstacle and people.

RC aircraft in flights is uncertain of flight speed and status, which potential risk exists in when flying. Please keep your radio controlled aircraft far away from people, high buildings, high-tension line, etc, and avoid operating in rain, storms, thunder and lightening.

(2) Away from humidity environment

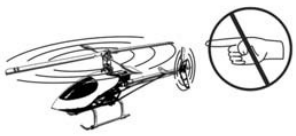
Radio controlled aircraft should be kept away from humidity and vapor because it is composed of complicated precise electronic elements and mechanical parts.

(3) Proper operation

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

(4) Safety operation

Operate your equipment according to your body status and flight skills. Fatigue, listlessness and mis-operation will increase the possibilities of accidental hazard.



(5) Away from heat sources

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

### 1.3 Attention before flight

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

(2) Ensure both the throttle stick and the throttle trim of your DEVO 12E stay at the lowest positions before operation.

(3) Strictly obey the order of TURN-ON and TURN-OFF before operation. When starting your flight, turn on your DEVO 12E first, and connect the battery to the aircraft last. When turning off the aircraft, disconnect the battery first, and turn off your DEVO 12E last. An upset in the order may cause your aircraft out of control. Cultivate a correct habit of turn-on and turn-off.

(4) Ensure whether the directions and actions of all the servos in your RC aircraft are correct when executing commands of the transmitter. Using broken servos will result in unforeseen dangers.

# 2.0 Features

### 2.1 Transmitter DEVO 12E

(1) The DEVO 12E adopts 2.4 GHz Direct Sequence Spread Spectrum (DSSS) technology and features automatic ID binding and ID assignment. It can also be customizedly set as fixed ID code.

(2) USB online update makes you always enjoy the latest program.

(3) Hi-frequency output power is adjustable.

(4) Wireless data transmission between two DEVO 12E helps experience the training function.

(5) Up to 30-model data can be saved.

(6) DEVO 12E adjusting the gyro sensitivity makes hovering flight and fancy flight in an easy way.

(7) Shape design accords with human engineering and provides comfortable holding.

(8) Both the length and tension of the sticks can be amendable.

(9) DEVO 12E can be freely switched among Modes 1, 2, 3, and 4.

(10) DEVO 12E is suitable for Helicopter , Airplane and Glider. In the helicopter mode, there are three flight modes,each of which can be freely set and its parameters can be personalizedly adjusted to meet the requirement for F3C or 3D aerobatic flight.

### 2.2 Features of DEVO-RX1202

(1) Adopts 2.4GHz Direct Sequence Spread Spectrum (DSSS) that features fast reaction and strong anti-jamming protection.

(2) Double receiving circuits and signal switch automatically effectively assure the stability of receiving signal.

(3) The single chip Microco as CPU provides super-strong analyzing ability.

(4) The receiver maintains the frequency and the ID memories when its changing a new battery pack with the transmitter powered on .

(5) It can be customizedly set as fixed ID and automatic ID assignment.

# 3.0 Specification

### 3.1 DEVO 12E transmitter Specification

- Encoder ····· 12-channel micro computer system
- Frequency ····· 2.4GHz DSSS
- Output power ····· ⩽100 mW
- Current drain ····· ⩽200 mA (100 mW)
- Power supply ····· 5# Battery 8 X1.5V or NiMH 8 X1.2V 1,600 - 2,000 mAh
- Output pulse ····· 1000 – 2000 Ms (1500Ms Neutral)

### 3.2 Receiver specification

- Type ····· 2.4GHz 12 channels
- Sensitivity ····· - 105 dbm
- Frequency interval ····· ≥ 4 M
- Weight ····· 15 g
- Dimension ····· 47X32X16mm
- Receiver Battery ····· 4.8-6V 1,300mAh

# 4.0 Definition of DEVO 12E

## 4.1 Panel definition

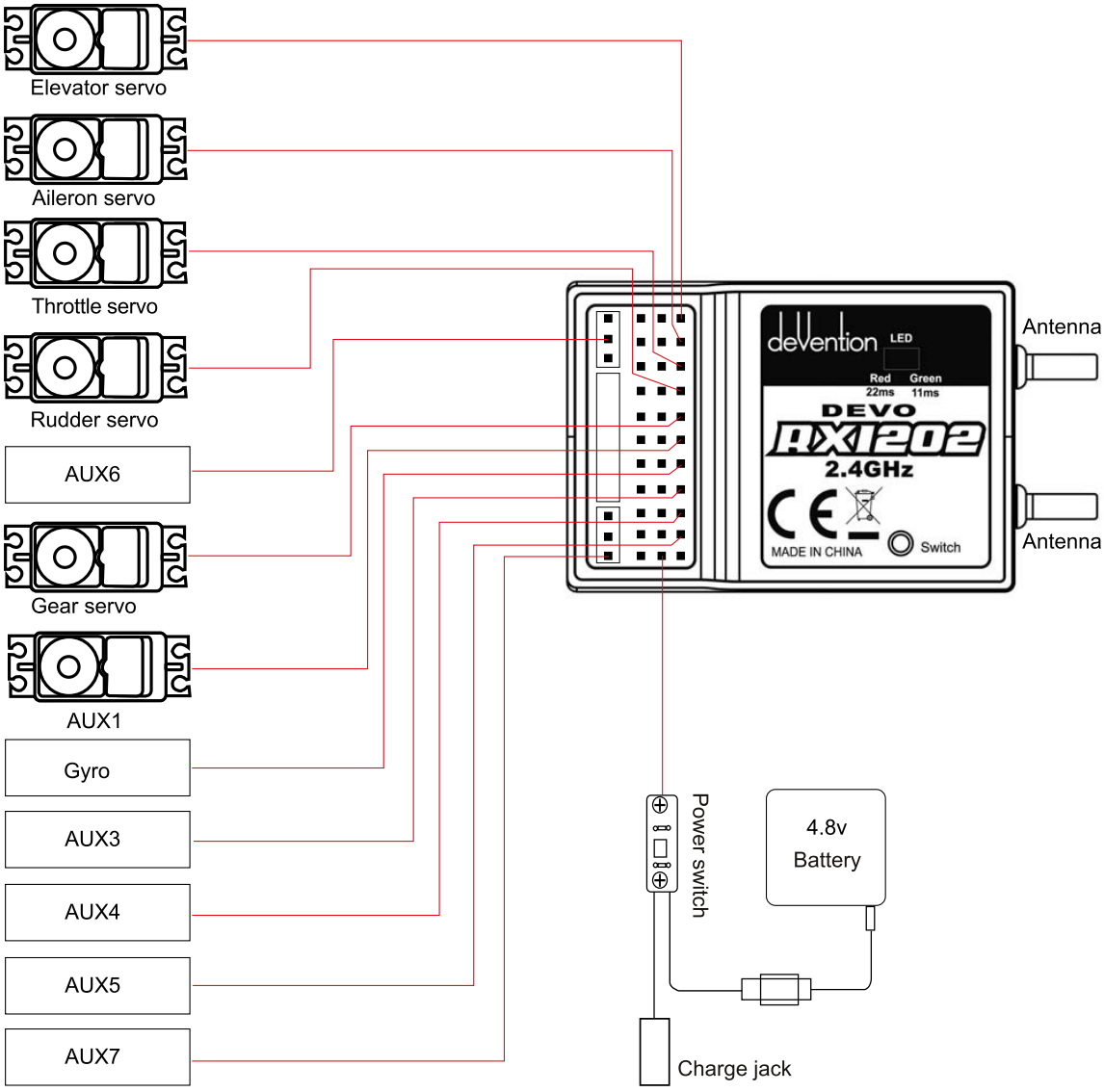

## 4.2 Rear definition


(1) Charge socket (CHG): input DC at 12V, Current 50 mAh; Polarity: ⊕—•)—⊖

(2) Digital Signal Converter socket (DSC): used for simulator flight practice via computer (You need software and its dongle which are available in hobby shops), and for training.

(3) USB socket:The USB socket combined with PC machine can upgrade the device program,uplode and download the Configuration parameters.

### 4.3 Wiring Diagram




### 4.4 Function keys in panel

There are 6 functional keys in the panel of DEVO 12E. Below are the details:

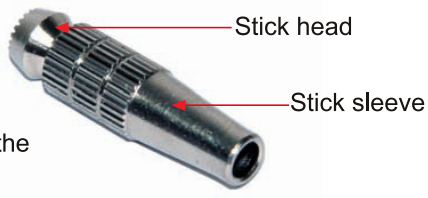
(1) EXT: Reset key. Press EXT to exit the main menu.
(2) ENT: Confirmation key. Press ENT to access the system or the function mode.
(3) UP: Moves cursor up to the forward function item.
(4) DN: Moves cursor down to the next function item.
(5) R: Moves cursor right to increase the setting value.
(6) L-: Moves cursor left to decrease the setting value.

## 5.0 Control Stick Adjustment

Stick adjustment control has two parts:the stick length and degree of tightness.

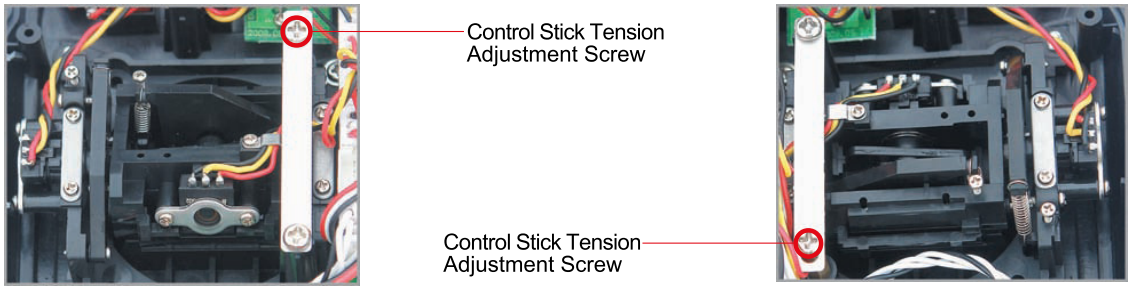
### 5.1 The stick length adjustment

(1) Prolong the stick length: Counter clockwise rotate the stick head until the length you hope, and then counter clockwise tighten the stick sleeve.
(2) Shorten the stick length: Clockwise rotate the stick sleeve until the length you hope, and then clockwise tighten the stick head.



### 5.2 Control Stick Tension Adjustment

Use the screw driver to loosen the 6 screws in the 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).

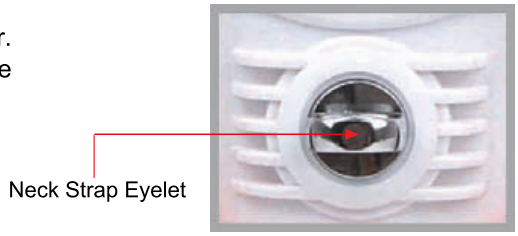



Right throttle set

Left throttle set

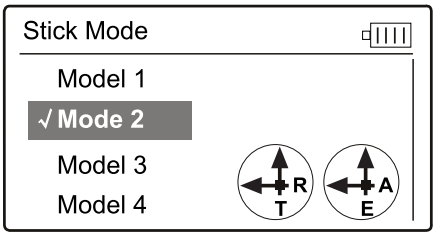
## 6.0 Neck Strap Usage

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



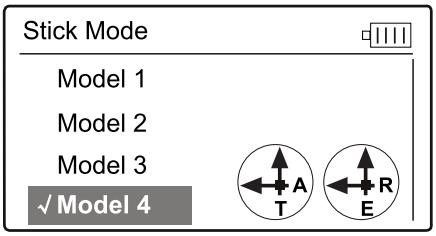

## 7.0 Stick Mode Switch

There are total four stick modes from MODE 1 through MODE 4. The left-hand throttle includes MODE 2 and MODE 4, and the right-hand throttle includes MODE 1 and MODE 3. Below is the sketch map:

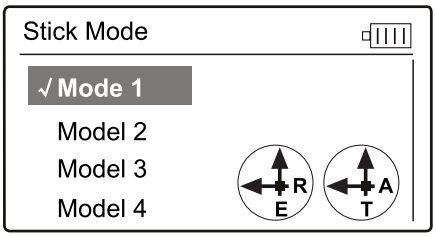



MODE 2

MODE 2 and MODE 4 are listed in left-hand throttle.

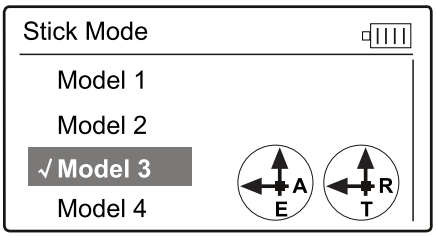



MODE 4




MODE 1

MODE 1 and MODE3 are listed in right-hand throttle.




MODE 3

## 8.0 Switches between left-hand and right-hand throttles

The throttle switch between the left hand and right hand will be successful if both the MECHANICAL switch and ELECTRONIC switch are finished, separately. Below are the methods for switching: