



Welcome to use the **MTC-01**

MTC-01

User Manual

Note: Please read throughly the manual before using and keep it in a safe place for the future reference.



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1.0 Foreword

MTC-01 with spread spectrum technology features automatically assigned ID and strong anti-jamming characteristics.

1.1 Important Statements

- (1) The product is suitable for experienced helicopter modelers 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 as soon as the product 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 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

MTC-01 should be kept away from humidity and vapor because it is composed of complicated precise electronic elements and mechanic parts.

- (3) Proper operation

Please 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

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

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(5) Away from heat source

The inside of the MTC-01 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) Charger method

Please use original USB wire connect with PC to charge the battery.

2.0 MTC-01 Specification

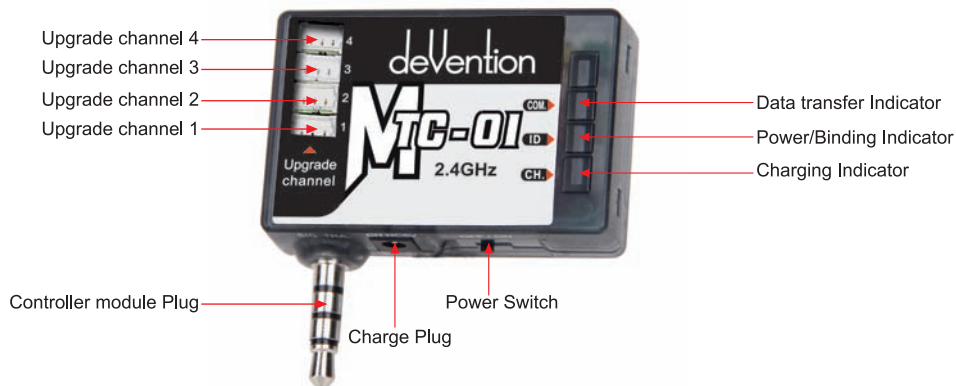
Frequency	2.4Ghz
Output power	<10mw
Output current	<35mA
In-built Battery	3.7V 80mAh LiPo battery
Weight	10g
Working time	2-3 hours

3.0 Charger


- (1) There is a 3.7V 80mAh LiPo battery in the controller. The battery can be charged with the USB wire.
- (2) The charge indicator becomes solid red when charge the battery, and will turn off Automatically after fully charged.
- (3) When MTC-01 power indicator and binding light flashing at the same time means you need to charge the inner battery at once.
- (4) Charging Voltage:5V; Charging Current: < 500mA.

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4.0 MTC-01 controller module illustration



5.0 Download Software


- (1) Please download and install the RC-Copter software at Walkera Official Website(www.walkera.com).
- (2) Press  and follow the steps to finish the installation of the RC-Copter. (ONLY suitable for above 2.0 version Android system)

Note: The different hardware of Android phone may lead to the failure of using MTC-01. It's totally based on the products which you are using.

6.0 Method

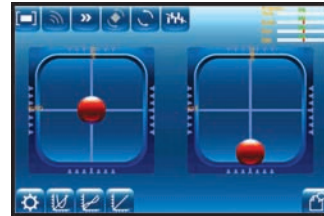
Notice : Please adjust phone to Airplane mode (Pls refer to the mobile phone manual) in order to avoid accident from calling interference.

6.1 Active RC-COPTER software

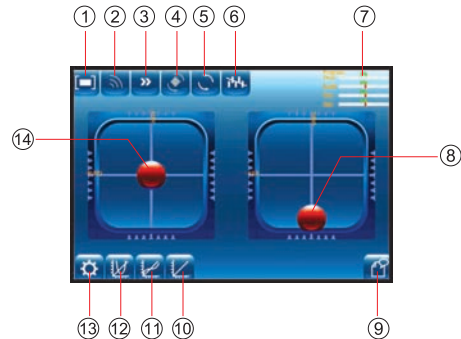
- (1) Find icon  on the phone interface and Active RC-COPTER software , as shown below.



- (2) Press  enter to control interface as shown below:



6.2 Following picture shows instruction in the control interface



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- | | |
|--|--------------------------------|
| ① Touch Screen Size Switch Key | ⑧ THRO/AILE stick |
| ② Binding | ⑨ Help |
| ③ Throttle direction indicator/
Mode Switch key | ⑩ PIT curve |
| ④ Gravity sensor | ⑪ D/R and Exponential
curve |
| ⑤ Interface rotation | ⑫ Throttle curve |
| ⑥ Binding Reset | ⑬ Setup |
| ⑦ Channel Display | ⑭ ELEV/RUDD stick |

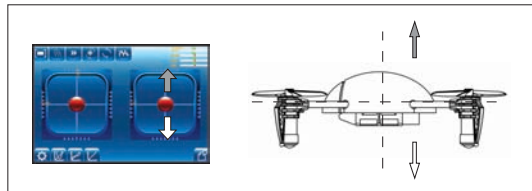
6.3 Binding

Plug the MTC-01 to the audio jack of phone, and turn on the MTC-01, the data transfer indicator is off after short green flashing, and the power indicator keeps blue light. Press Binding Icon in the flight control interface. The binding indicator is flashing in blue light (If the blue light don't flash, please press the Binding Reset Key in the flight control interface and then press the binding key until the binding indicator blue light flashes). Connect the aircraft battery, the light becomes RED and flashing. The indicator of the aircraft becomes solid after successful binding, At this point, the binding could be finished with touching any stick of radio (The throttle stick is excluded), or you can wait until the automatic binding by the phone (Longer time is needed). The data transfer Green light flashes, the power BLUE indicator keeps solid. The RED indicator of aircraft becomes solid after flashing (the receiver programme is initialization), the binding is successful.

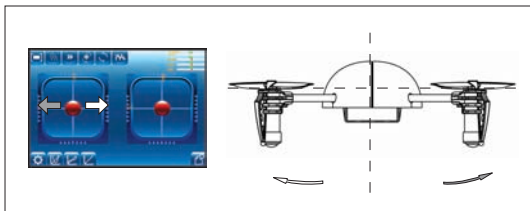
6.4 The touch sticks notes of the controller

- (1) On the left screen: This is helicopter's throttle, it can fly the helicopter in the air by move forward and land the helicopter when you move backward of it (The motor will rotate when you move THRO/AILE stick forward, the higher you move, the faster the motor rotates, vice versa).

When fly down, there will be a slow speed of motor. The lower the helicopter flies, the slower the motor will rotate.



- (2) When moving THRO / AILE stick left, the aircraft accordingly flies left; When moving THRO / AILE stick right, the aircraft accordingly flies right.
- (3) On the right screen: This function can control helicopter's direction, you just need to move it to up, down, left or right. When moving ELEV / RUDD stick up, the aircraft accordingly flies front, When moving ELEV / RUDD stick down, the aircraft accordingly flies back
- (4) When moving ELEV / RUDD stick left, the aircraft accordingly rotate left (CCW), When moving ELEV / RUDD stick right, the aircraft accordingly rotate right (CW).



6.5 The Gravity Sensor notes of the controller

Press Gravity Sensor on the controller interface, color Icon means Active, and grey Icon means Non Active. Please refer to below Illustration:

Gravity Sensor key Non Active status



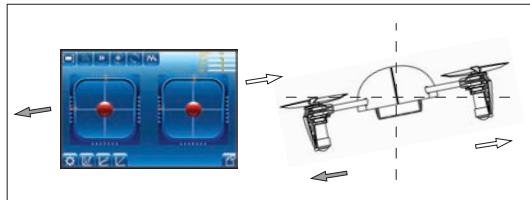
Gravity Sensor key Active status



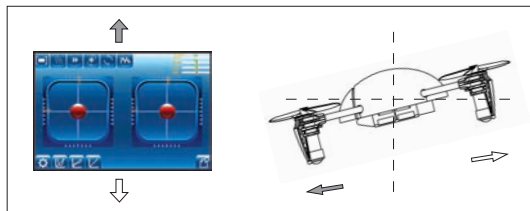
When Gravity Sensor Active (Icon shown with color), the ELEV stick and AILE stick are in gravity sensor control mode (one hand operation is available). The control direction details are as follows:

(1) The throttle still controlled by the THRO/AILE stick, the higher you move, the faster the motor rotates.

(2) The aileron direction control: when the phone leans on the left, the aircraft flies left; While the phone is to the right, the aircraft will fly right;




(3) ELEV direction control: when the phone leans on the front, the aircraft flies front; While the phone is to the back, the aircraft will fly back;

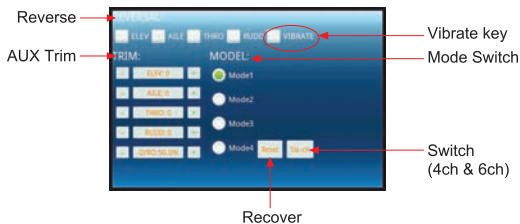


(4) RUDD Direction control: When moving ELEV / RUDD stick left, the aircraft head accordingly rotate left (CCW), When moving ELEV / RUDD stick right, the aircraft head accordingly rotate right (CW).

Note: If a short stop is needed during flight, please press the Binding Key in the flight control interface. Both green light of the data transfer indicator and blue light of power indicator will be solid at the same time. The aircraft will be out of control if move the Control Stick in the flight interface. The short stop could be removed by pressing the Binding Key slightly.

7.0 Function settings

Press  on the controller interface, you can set the Reverse, AUX Trim, Mode Switch, and Vibrate key.



7.1 Reverse settings

This reverse is available for AILE, ELEV, THRO and RUDD's direction.

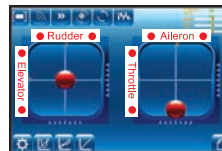
The cellphone will vibrate when you Active Vibrate key. (If not choose it, the statue is Normal, the Colorful marked with "✓" means Active.)

7.2 AUX Trim

AUX Trim can trim the servo midpoint, when the servo excursion a lot, it's better to trim the ball linkage of the aircraft's servo directly, it maybe damage the servo if you trim too much on the AUX Trim. Touch + or - can change the data and the servo's midpoint (value range -200 ~ + 200).

7.3 Mode switch

There are four switch modes. Right hand throttle (Mode 1, Mode 2); Left hand throttle (Model 3, Mode 4).



Mode 1(Right hand throttle)



Mode 2(Right hand throttle)



Model 3(Left hand throttle)




Mode 4(Left hand throttle)

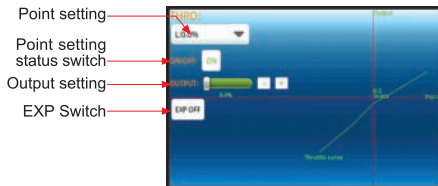
7.4 Recover


All the settings will renew to factory settings when you Press this key.

Note: In case of emergency (A sudden flight for the aircraft), please don't make the Mode switch after successful binding.

7.5 Throttle curve


Touch Icon  on the interface to enter throttle curve settings, Check below picture.



- (1) Point Setting: Touch  there are 7 different options popping up. Touch the point that need to be reset.
- (2) Point setting status switch: If you want to set the throttle curve point setting value, please make sure the Status is on, otherwise, turn it off.
- (3) Output setting: select the point that need to be set. Touch "+" or "-" to set your desired value.

- (4) EXP Switch: There are ON and OFF two status when you touch the EXP Switch. The throttle curve will be smooth and natural if the status is ON while it will be change to irregular curve while the status is off.

7.6 Dual Rate and Exponential

Touch the icon  to enter Dual Rate and Exponential adjustment, as follows:



- (1) Channel selection: Touch the navigation mark of Channel. An expansion list pops up, which contents Elevator, Aileron, and Rudder. Choose the desires channel for setting.
- (2) Dual Rate adjustment: Touch the mark of Dual Rate "+" or "-", adjust the needed dual rate value. While the curve graph will being changed in one direction at the right graph.
- (3) Exponential: Touch the mark of Exponential "+" or "-", to adjust the needed value. While the curve graph will being changed at the same time, shown at the right graph.

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8.0 The Usage of mobile extended line(Optional)

- (1) Paste the magic stickers separately at the back of MTC-01 and mobile phone.



- (2) Insert MTC-01 into parent end of signal line, the other end(dual-sound channel end) plugs into the audio jack of phone.
- (3) Get the two magic stickers together for better flight control.The MTC-01 could also be hung in the air without pasting the magic stickers.



9.0 MTC-01 for WK Series radios function manual

- (1) MTC-01 for **WK Series radios(WK-2402, WK-2402A, WK-2403, WK-2602, WK-2603, WK-2801, WK-2801E, WK-2801PRO)** function: Connect MTC-01 to simulated output signal socket in the WK series radio(Please refer to below Illustration), it could control the correspond channel receiver of devo series helicopters. The specific methods are as follows:
- (2) Connecting Method: Insert MTC-01 into parent end of signal line, the other end plugs into the simulated output signal plug in the WK series radio



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- (3) Please fix the MTC-01 onto the back of radio by using magic sticker. It could prevent the flight from poor contact between the plugs.



- (4) Binding:

- (4.1) Turn on the MTC-01, the data transfer indicator light is off after short flashing, the power indicator light is Blue.
- (4.2) Power on the radio, The binding indicator is flashing in Blue light. Connect the aircraft battery, the light becomes RED and flashing. The indicator of the aircraft becomes solid after successful binding ,At this point, the binding could be finished with touching any stick of radio(The throttle stick is excluded). or you can wait until the automatic binding by the phone (Longer time is needed). The data transfer Green light flashes, the power BLUE indicator keeps solid.The RED indicator of aircraft becomes solid after flashing(the receiver programe is initialization),the binding is successful.(Please refer to the corresponding radio manuals for other flight specifications)

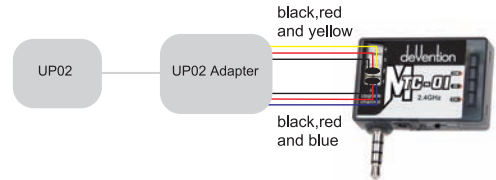
10.0 Update Online

There are two piece programe IC inside the MTC-01 module can be updated(Signal collection control programe IC and RF control programe IC).

- (1) Please login Walkera official wesite to upgrade the MTC-01 Control Program.
- (2) Upgrade tool: UP02 cable and UP02 adapter.

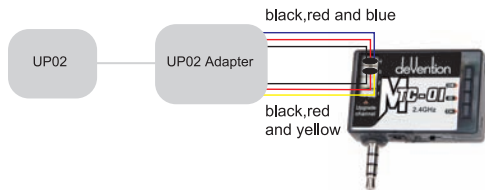


- (3) Control Program IC upgrade by Signal: Plug the line binded with black, red and blue into the MTC-01 upgrade channel 1, Plug the line binded with black, red and yellow into the MTC-01 upgrade channel 2.



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- (4) Control Program IC upgrade by RF: Plug the line binded with black,red and yellow into the upgrade channel 3, Plug the line binded with black,red and blue into the upgrade channel 4.



Note: When using the phone to control, please adjust the volume at maximum to insure the normal data transfer. Please don't adjust the volume after successful binding. Please unplug the aircraft battery firstly, and then turn off the MTC-01 after flight.

Modifications not authorized by the manufacturer may void users authority to operate this device. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



The specifications of the R/C Product may be altered without notice.

