



GM-FLY

*CCPM-FM*

*SIX CHANNELS*



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# INSTRUCTION MANUAL

**JFT602**



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**DIGITAL PROPORTIONAL RADIO CONTROL SYSTEM**

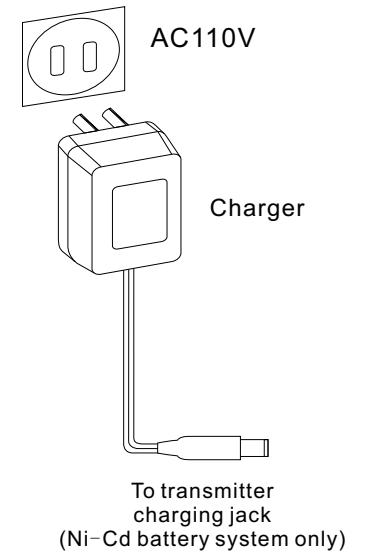
## CHARGING THE Ni-Cd BATTERY



### CAUTION

When not using the Ni-Cd battery charger, disconnect it from the AC outlet.

1. Connect the charger connector to the transmitter charging jack .
2. Connect the charger to an 110V AC outlet.
3. At the end of charging, disconnect the charger from the AC outlet.



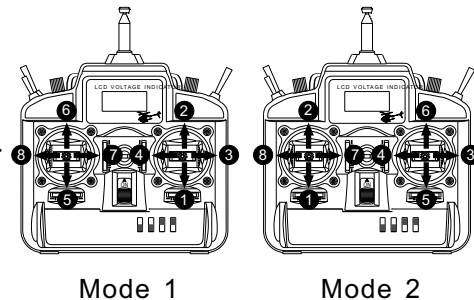
When the throw is unsuitable , adjust it by changing the servo horn and each control surface horn rod.

**3. Check the engine throttle (speed adjustment) linkage.**

Change the servo horn installation position and hole position so that the throttle is opened fully when the throttle stick is set to HIGH (forward Position and higher position respectively) and is closed fully when the throttle stick and throttle trim are set to maximum slow (backward position and lower position, respectively).

**4. After all the linkages have been connected, recheck the operating direction, throw, etc.**

With ①, the electric motor stops and the pitch angle decreases.  
With ②, the main rotor rotates and the pitch angle increases.  
With ③, the swashplate tilts right.  
With ④, the swashplate tilts left.  
With ⑤, the swashplate tilts back.  
With ⑥, the swashplate tilts fore.  
With ⑦, the slide ring moves left.  
With ⑧, the slide ring moves



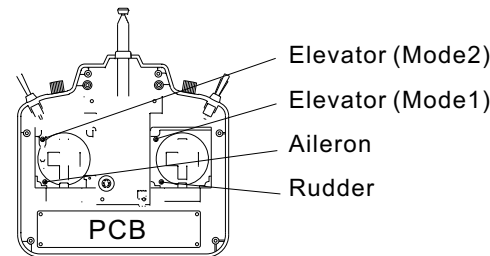
After confirming each control stick movement, move the throttle control stick halfway up to run the electric motor. Break in all rotating parts until the battery runs down.

**5. Fly the plane and trim each servo.**

**STICK LEVER SPRING TENSION ADJUSTMENT**

The stick spring strength can be adjusted.  
The operating feel of the aileron, elevator, and rudder sticks can be individually adjusted.

- 1.Remove the six transmitter rear case screws and remove the rear case.
- 2.Adjust the spring strength by turning the screw of the channel you want to adjust.
- 3.Close the rear case and tighten the six screws.



Thanks for you purchase this product JFT602. Please read the instruction manual carefully to ensure your operation proper and safe before using, and keep this manual for future use.

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## PRECAUTIONS OF USING SAFELY

Observe the following precautions to ensure use in security:

### MEANINGS OF SPECIAL MARKS

Pay special attention to the safety at the parts of this manual that are indicated by the following marks.

#### MARK

#### MEANING



**DANGER**

If not carried out properly, procedures which may lead to dangerous condition and cause death or serious injury to the user.



**WARNING**

If not carried out properly, procedures which may lead to dangerous condition and cause death or serious injury to the user. Or procedures where the probability of superficial injury or physical damage is high.



**CAUTION**

If not carried out properly, procedures where the possibility of serious injury to the user is small, but there is a danger of injury or physical damage.

#### SYMBOL:



Prohibited



Mandatory

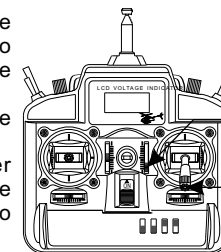
## ADJUSTMENTS BEFORE FLYING

The operating direction, neutral position, and steering angle of each servo are adjusted.

### ⚠ CAUTION

The software of this transmitter has the function of autocorrect to center position, so before turning on the power switch of the transmitter, make the following adjustments:

1. Set the Throttle Stick and Throttle Trim Lever to the lowest position.
2. Set the Elevator Trim Lever, Rudder Trim Lever and Aileron Trim Lever to the middle position, and insure their stick to the center position.



Throttle trim lever (Mode 1)

Throttle stick (Mode 1)

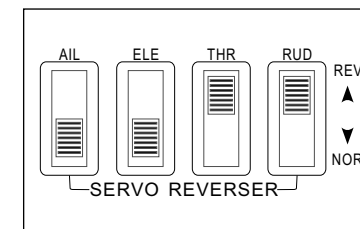
### ADJUSTMENT PROCEDURE

Before making any adjustments, set all the SERVO REVERSER switches on the front of the transmitter to the lower (NOR) position. Turn on the transmitter and receiver power switch, then make the following adjustments:

#### 1. Check the direction of operation of each servo.

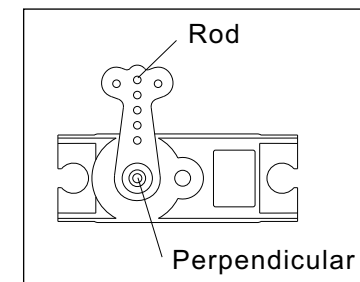
If a servo operates in the wrong direction, switch its SERVO REVERSER switch. (The direction of operation can be changed without changing the linkage.)

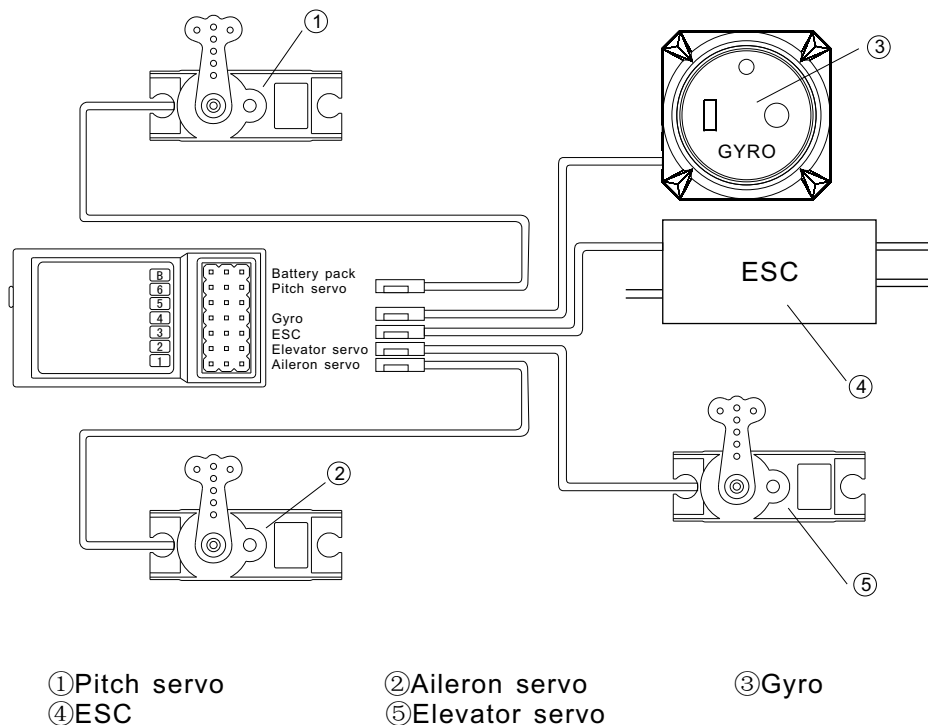
\*Note that the direction of the aileron servo is made easily mistakes.



#### 2. Check the aileron, elevator, and rudder neutral adjustment and left-right (up-down) throw.

Check that when trimmed to the center, the servo horn is perpendicular to the servo and check the neutral position of the fuselage control surfaces (aileron, elevator, rudder, etc.). If the neutral position has changed, reset it by adjusting the length of the rod with the linkage rod adjuster.





## OPERATION

1. Firstly set the throttle stick and its trimmer on your transmitter to the lowest position. Set the Elevator Trim Lever, Rudder Trim Lever and Aileron Trim Lever to the middle position, and insure their stick to the center position. Only in this condition can you turn on your transmitter.
2. After the transmitter is turned on, you can connect the battery to the receiver.
3. Should the helicopter crash, immediately set the throttle stick and its trimmer to the lowest position, disconnect the battery first and then turn off your transmitter to avoid damage of the helicopter and /or the Controller.

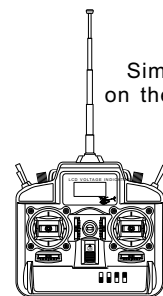
## PRECAUTIONS DURING FLIGHT



### WARNING



### Prohibited

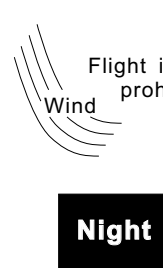


**Simultaneous flight on the same frequency is prohibited**

### Do not fly simultaneously on the same frequency.

Interference may cause a crash.

※ Use of the same frequency will cause interference even if the modulation method (FM, PCM) is different.



**Flight is strictly prohibited**

### Do not fly in rainy or windy days, or at night.

Water will penetrate into the transmitter and cause faulty operation, or loss of control, and cause a crash.

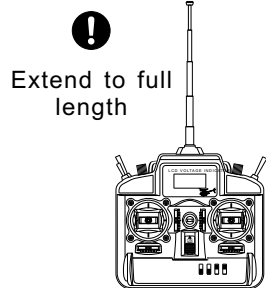
### Do not fly at following place:

- Nearby other airports that controlled by radio (within 3 kilometers),
  - The space of someone,
  - Somewhere full of human, such as house, school, hospital,
  - Nearby high voltage wire, high buildings or telecom equipment.
- If the mini helicopter prang for electrical interference, fraise, balance or problems of appliance, it may cause death of other or damage of houses.

### Do not fly when you are tired, sick or drunken.

The mini helicopter may cause a crash due to the shortage of your attention or incorrect judgment.

»————— **! Mandatory** —————«

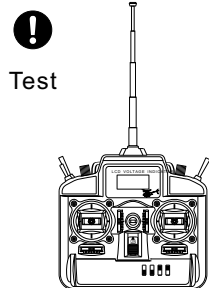


**Extend the antenna to its full length.**

The effective range of the radio waves will become shorter if the antenna is too short, and cause a crash.

**Make sure the antenna of the transmitter is set up tightly.**

The mini helicopter may cause a crash due to can't receive the signal if the antenna is loose during flying.



**Test the digital proportional R/C set before flying.**

Any abnormality in the digital proportional R/C set or model may cause a crash.

※ Before turning on the engine, check that the direction of operation of each servo matches the operation of its control stick. Do not fly the plane if a servo does not move in the proper direction, or operation is abnormal.

**⚠ CAUTION**

»————— **⊘ Prohibited** —————«

**Do not place the bottom of transmitter on the ground during prepare flying.**

The transmitter is blew down by wind easily and the control lever turned on, your may be injured by airscrew.

**Do not touch engine etc. during flying and for a short time after flying.**

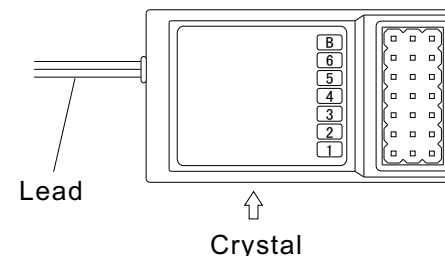
It may cause scald easily due to high temperature.

## RECEIVER

### Crystal

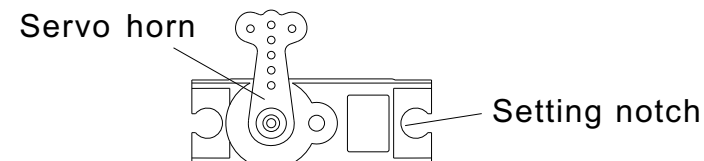
The crystal is replaced from the side of the receiver.

### Output/battery connector:



"B": Battery connector  
 "6": Pitch servo (CH6)  
 "5": (no used) (CH5)  
 "4": Gyro (CH4)  
 "3": Throttle servo (CH3)  
 "2": Elevator servo (CH2)  
 "1": Aileron servo (CH1)

## SERVO



## CONNECTION OF THE RECEIVER AND SERVOS

Connect gyro, ESC, battery and servos to the receiver respectively as shown in below:

- 1) Turn off the transmitter and set the throttle stick to its lowest position (power-off position).
- 2) Plug the ②Aileron Servo into the CH1 socket and ⑤Elevator Servo into the CH2 socket and ①Pitch Servo into the CH6 socket.
- 3) Connect the ③gyro and ④ESC to the receiver , plug them into the CH4 Socket and CH3 Socket respectively.
- 4) Battery should be connected at the last.

**IMPORTANT:** Before connecting the battery, you must turn on the transmitter first in order to avoid un-expected radio interference into the receiver. After flight, disconnect the battery first and then turn off transmitter.

## Power switch

In the upper position, the power is turned on.

## Servo reversing switches

Switches that reverse the direction of operation of the servos.

The lower position is the normal side and the upper position is the reverse side.

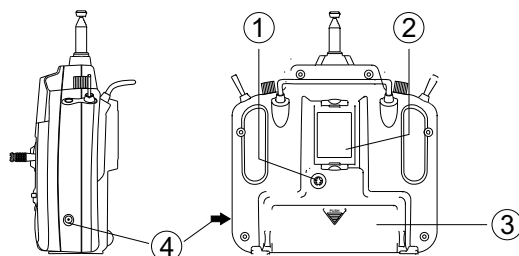
### Channel display

AIL: Aileron (CH1)  
ELE: Elevator (CH2)  
THR: Throttle (CH3)  
RUD: Rudder (CH4)

### Operating direction display

REV: Reverse side  
NOR: Normal side

## TRANSMITTER (BACK)



- ① Trainer jack
- ② H. F. M  
Mode (35M/36M/40M/41M/72M)
- ③ Battery cover
- ④ Charging jack

### Trainer jack

Connects the trainer cord when using the trainer function.  
(The trainer cord is sold separately.)

### Battery cover

Use when replacing the battery. Slide the cover downward while pressing the part marked "PUSH".

### Charging jack

When the LCD window of the transmitter showing twinkling "Lo" continuously, meaning the low electricity of the transmitter battery, please recharge immediately.

**Caution:** Never charge when you use alkaline battery.

## ! Mandatory

### ■ When turning on the power switch

After setting the transmitter throttle stick to maximum slow,

A. Turn on the transmitter power switch.

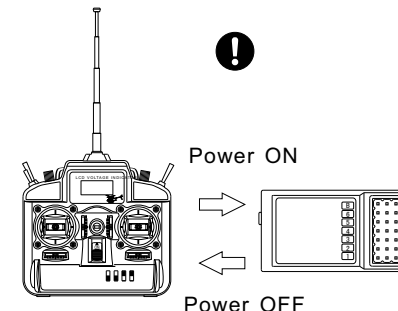
B. Turn on the receiver power switch.

### ■ When turning off the power switch

After stopping the engine or motor,

A. Turn off the receiver power switch.

B. Turn off the transmitter power switch.



※ Maximum slow: Direction in which the engine or motor runs at the slowest speed.

The engine may go to full throttle unexpectedly and cause an injury if the power switch is turned off in the opposite order.

### You must stop the engine except necessary when you are adjusting the balance.

You are easy to injure by high-speed movement of airscrew.

## Ni-Cd BATTERY USING PRECAUTIONS

### ! WARNING

## ! Mandatory

### Charge the Ni-Cd battery before flying.

The mini helicopter that out of battery will prang.

### Charge the digital proportional R/C Ni-Cd battery with the special charger, or digital proportional R/C quick charger, sold separately.

Overcharge may cause burn, fire, injury, blindness due to overheating, breakage, electrolyte leakage, etc.

## ⚠ CAUTION

⊘ Prohibited

**Prohibit the terminal of the Ni-Cd battery connector to short circuit.**

Short circuit may cause burn, fire etc.

**Prohibit impact strongly the Ni-Cd battery such as drop down.**

If the battery is damage for shorting or overheat abnormally, and cause electrolyte leakage, it may result in burn or corrosion of chemical matter.

## STORAGE OF Ni-Cd BATTERY

## ⚠ WARNING

⊘ Prohibited

**Keep the battery, equipment away from babies and children.**

They may injure for equipment operating or licking battery.

**Do not dispose the battery in a fire, or heating them, and prohibit disassembly or refit.**

That may result in explode, overheating, electrolyte leakage, burn, injury, blindness, etc.

⚠ Mandatory

**Store the Ni-Cd battery in discharging mode if you will not fly the mini helicopter, and recharge the battery before preparing for flying.**

If you repeat to charge battery for a short time, in other words, the battery has no charge fully, for the sake of the battery has memory function, then the battery cannot charge filled, and the time of flying will decrease, may cause a crash.

## ⚠ CAUTION

⊘ Prohibited

**Do not expose the battery to direct sunlight, extreme temperature (degrees Celsius over 40 or under -10), high humidity, full of dust, nearby from heating appliances etc.**

Those locations should be the reason of bend or damage.

⚠ Mandatory

**Remove the batteries from transmitter or helicopter if you will not use them for a long time.**

If not remove, the electrolyte leakage of the batteries will affect them performance and

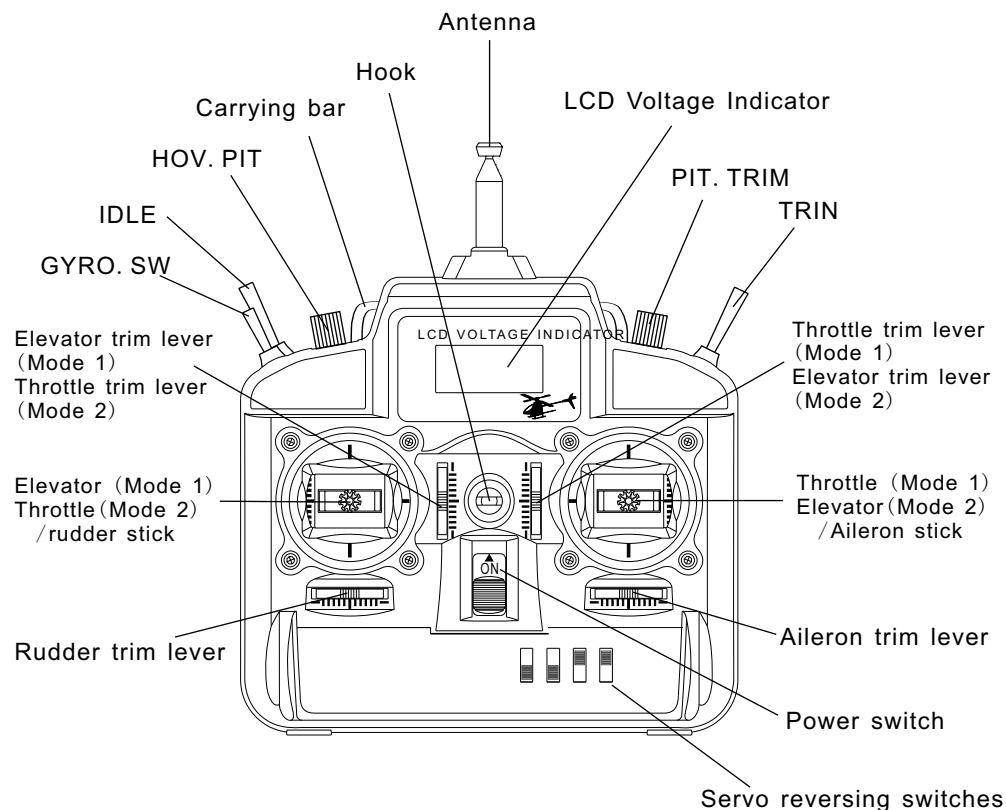
## CONTENTS IN THE BOX

Please check following parts in the gift box.

|                        |                              |
|------------------------|------------------------------|
| The R/C transmitter    | 1 piece                      |
| The H.F.M              | 1 piece (on the transmitter) |
| The receiver           | 1 pieces                     |
| The servo              | 4 pieces                     |
| The instruction manual | 1 piece                      |

## NAME AND HANDLING OF EACH PART

### TRANSMITTER (FRONT)





## **WARNING:**

- Any unauthorized adjustment on this product could result in a violation of part 95 of the FCC Rules. Please have a person certified as technically qualified to perform transmitter maintenance and repair duties in the private land mobile services and fixed services by an organization or committee representative of users of the services.
- Replacement of any transmitter component (crystal, semiconductor, etc.) could result in a violation of part 95 of the FCC Rules.
- A license may be required to operate this product in some countries. Consult about the license issue from the radiology department of the country.
- Changes or modifications to this unit not expressly approved by the party responsible for compliance will void the user's authority to operate the equipment. Any change to the equipment will void FCC grant.

## **NOTE:**

This equipment has been tested and found to comply with the limits for a digital device, pursuant to part 95 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.