

2 CHANNEL HK-GT2E

AUTOMATIC FREQUENCY HOPPING DIGITAL SYSTEM

2.4 GHz

INSTRUCTION MANUAL



Specifications

Model type	Car/ Boat
RF power	No more than 20dBm (100mW)
Modulation	GFSK
System type	AFHDS 2A
Sensitivity	1024
Low voltage warning	Yes (less than 4.2V)
DSC port	3.5mm
Charger port	Yes (3.5 IN)
Power	AA*4, 6VDC
Weight	241g
ANT length	26mm
Size	210x95x160mm
Color	Black

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1. INTRODUCTION

Thank you for choosing 2.4 G radio remote control digital products, if you are the first time to use this type of products, please read this statement carefully and strictly in accordance with the requirements of operation. You could refer to the manual if you meet any problems during the operation. Please well keep the manual after use because you might have to use it again next time. Once again, thanks for buying our products.

2. SERVICES

If you find any problems during the operation process, please refer to the manual. If the problem still exist, you could contact our dealers to find out the way to solve. And you could also log on to our website service center: <http://www.hobbyking.com>

3. THE SPECIAL SYMBOLS

Please pay attention to the following symbols when it appears on the manual, and read carefully.



Danger: If the operator does not operate by following the instructions, the operator may lead to serious injuries, even mortal danger.



Warning: If the operator does not operate by following the instructions, the operator may lead to serious injuries, even mortal danger.



Attention: If the operator does not operate by following the instructions, the operator may lead to minor injuries, but generally it will not cause serious injuries to the operator.



Prohibition



Mandatory

4. SAFTY GUIDES



Don't fly in night ,bad weather such as rainy or thundering days .It will interfere the transmitter signal. Thereby it will create out of control and unexpected accident .



Before you fly, please make sure the movement of server correspond with the direction of joysticks. If inconsistent, please adjust before fly.



You need to turn the throttle channel(ch2) and inching switch to the lowest before You use. Then switch on the transmitter power ,finally connect the receiver.



The sequence to shutdown is that turn off the receiver power first, and then the transmitter power.

If the above operations are reverse, it might lead to uncontrolled and cause Accident.

2 Channel Transmitter

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5. 2.4GHZ SYSTEM

2.4GHz

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The system works in between 2.400GHz to 2.48356GHz frequencies that have been divided into 160 frequency points. Each system uses 16 frequencies points and 160 hopping frequency. By using various switching-on time, frequency hopping and different frequency points, the system can passively avoid frequency jamming.



The system uses a linear spread of fine paragraph by excess antenna, which covers the entire band width of the antenna bandwidth range, greatly enhances the efficiency of the system launch and receiving sensitivity. It greatly improves system stability, and strengthen the passive anti-jamming capability of the system.



Each transmitter has its own unique ID. When the transmitter communicates with the receiver, the ID will be transmitter and saved in the receiver. The System works only when the ID is matched when the receiver powers on. This dramatically increases the ability of passive anti-jamming and enhances the total stability of the system.



The system uses low power consumption components, and the receiver chip is extremely sensitive; the system uses interval signal transmission, thereby reducing the transmission power, and increasing the operating. Comparatively this system consumes only one tenth of the normal FM system.

6. BATTERY CHARGING NOTES



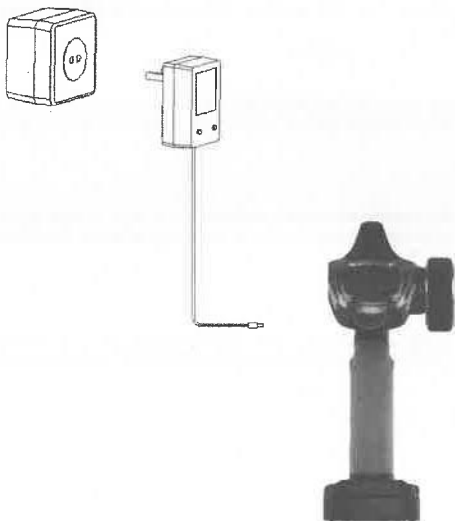
If your transmitter, receiver using a nickel-cadmium, nickel-metal hydride rechargeable battery, you have to well-check before you use. If lack of electricity, it could happen those phenomenon like inadequate control or out of control, resulting accident. So please charge immediately when the battery lacks of electricity.



If you are using a nickel-cadmium, nickel-metal hydride batteries for recharging, please use our company dedicated charger. If the electrical current is too large and it may lead to temperature over-heated and cause fire burning accident. Please cut off the power supply immediately after recharging. Please take out the battery from the transmitter when you are not using it within a period, it is because the battery may damage the aircraft batteries, thus being exposed.

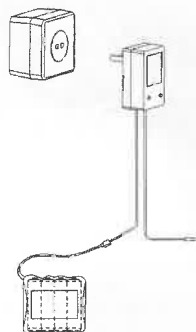
DC (DERECT CURRENT) CHARGING

1. Install the rechargeable battery to the transmitter.
2. Connect the charger to the commercial power connector.
3. Recharge completed, cut off the power supply immediately.



6.1 Receiver Charger

- A. Connect the charger to the commercial power connector.
- B. Connect the Rechargeable receiver with battery charger
- C. Recharge completed, cut off the power supply immediately.



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7. TRANSMITTER PARAMETERS



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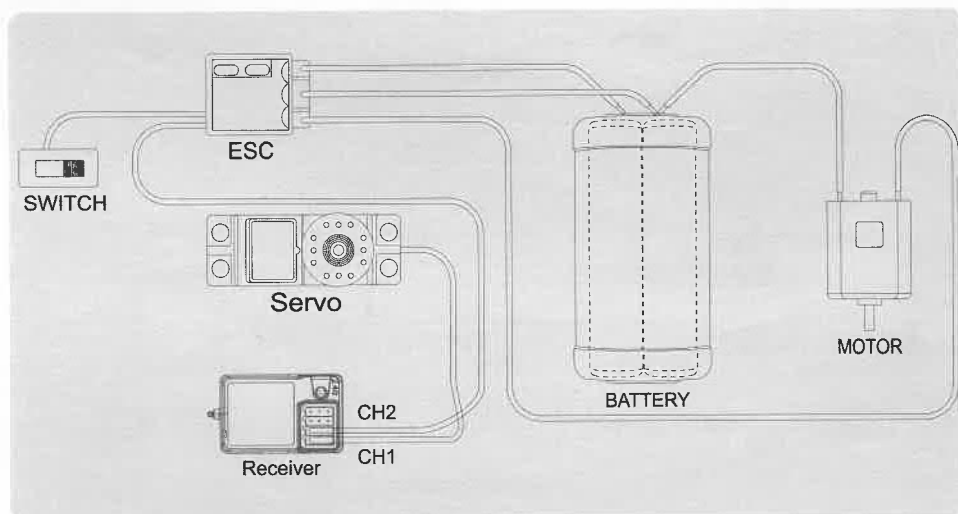
8. RECEIVER PARAMETERS



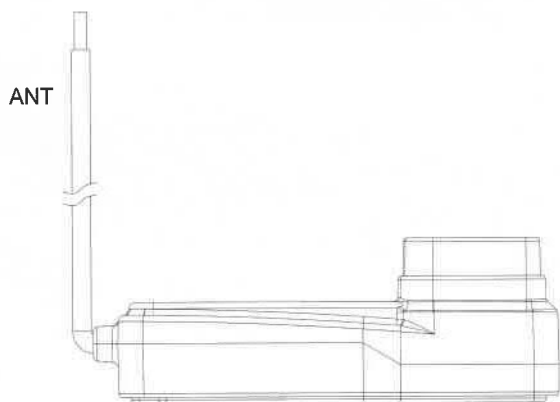
RF receiver sensitivity	-105dBm
Modulation	GFSK
System type	AFHDS 2A
Sensitivity	1024
Faisafe	Yes (Channel 2)
Bind port	Yes (Channel Ch4)
Power port	Yes (VCC)
Power	4.0-6.5 VDC (1.5V x 4)
Weight	5g
ANT length	26mm
Size	37 x 22 x 12mm

9. RECEIVER CONNECTIVITY

9.01 installation when a motor controller is used



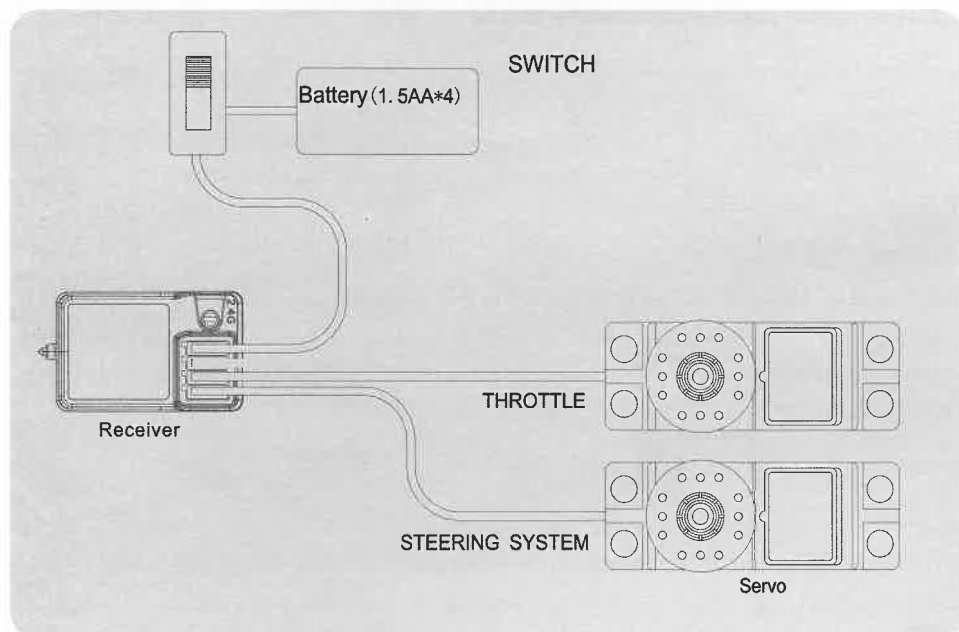
Remark: Place the antenna of the receiver vertically with the plane!
And don't let it close to the metal thing for assuring its sensitivity. (See pic1)



Receiver

Figure 1

9.2 INSTALLTION FOR DAS POWERED MODEL



10. 2.4G OPERATION NOTES

10.1 MATCHING (CODE)

Our products are well matched in the factory, you do not need to match by yourself. But if your are going to match the receiver with other transmitter, or you need to change a new receiver or transmitter, please follow the following steps:

- A. Install the battery to 2.4G transmitter and shut it down.
- B. Insert the matching lines to the channel BIND / VCC port of the receiver. (Figure.1) .
- C. Connect the receiver battery to CH 3 port of the receiver, on the same time the two LED are flashing and this means the receiver are going to the matching status.
- D. Press and hold the button on the transmitter, and then switch on the power supply.
- E. Observe the LED on the receiver, if find that the LED is not flash anymore and that means successful Matched. (This process about 5s)
- F. Release the match button on the transmitter, take out the match line.
- G. Install the server and then test.
- H. If the tests fail, please repeat the action above.
- I. If the tests success, then insert the power supply port into VCC, match complete.
(The above ways of match is only suitable for Hobbyking 2.4G products)

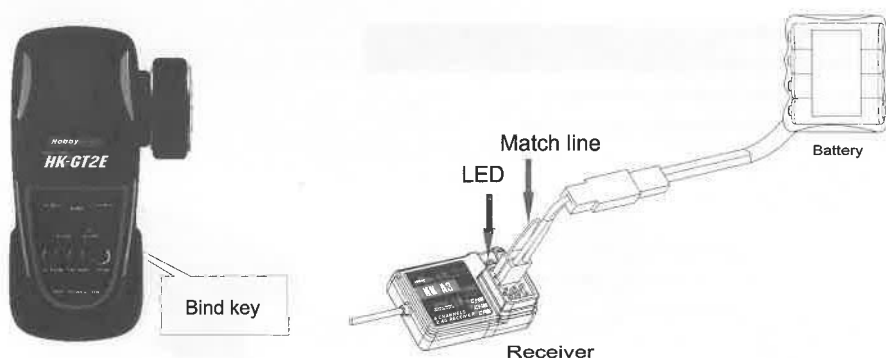


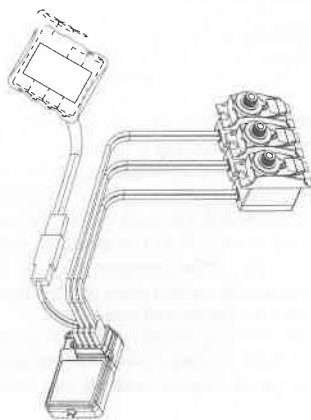
Figure 1

10.2 POWER ON

- A. Connect every part.
- B. Switch on the power supply of the transmitter.
- C. Connect the power supply of the receiver.
- D. Receive LED light solid.
- E. Finish and use.



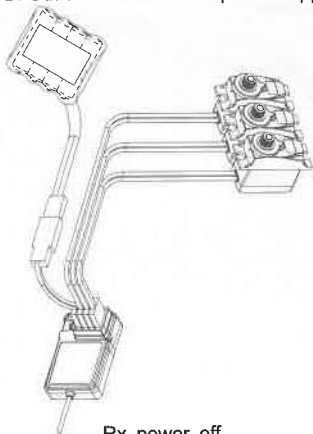
Tx power ON



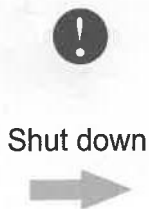
Rx power ON

10.3 SHUT DOWN

- A. Cut off the receiver power supply.
- B. Cut off the transmitter power supply.



Rx power off



Tx power off

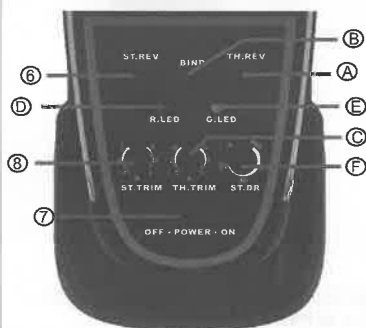
11. EACH PART OF THE TRANSMITTER

RIGHT



- ① CONTROL BOX ② 2.4G ANT
- ③ STEERING WHEEL ④ THROTTLE TRIGGER
- ⑤ BAT BOX

Control panel



- ⑥ ST REV ⑦ POWER ⑧ ST TRIM
- ① TH REV ② BIND ③ TH TRIM
- ④ R LED ⑤ G LED ⑥ ST DR

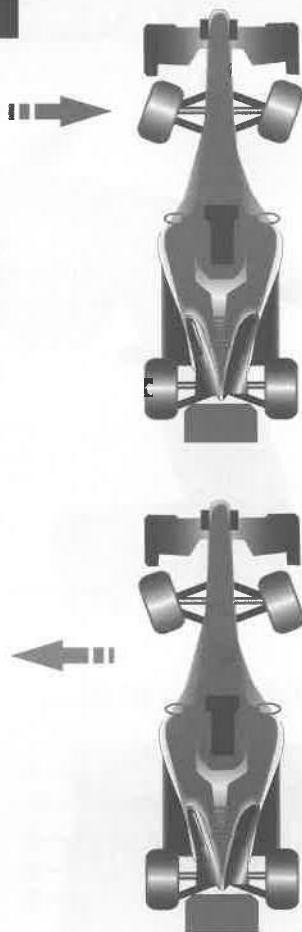
Left



- ⑦ 3.5IN AUX

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12. TRANSMITTER FUNCTION NOTES



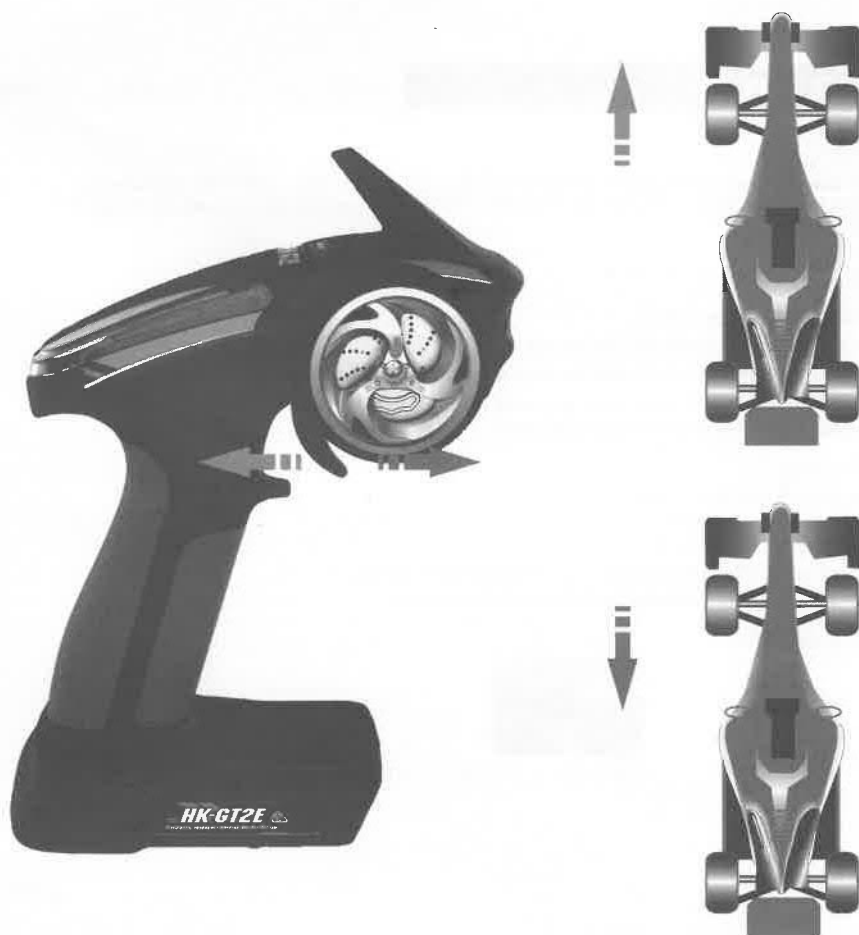
Function Introduction:

This function is to control the direction, when the steering turn to right then the front wheel will turn to right (as picture), when the steering turn to left then the front wheel will turn to left (as picture).

Operation Method:

Adjust the dual rate of the steering by adjusting the D/R knob.

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Function Introduction:

This function is to control the throttle speed, when pull the throtte trigger back,car will accelerate forward (see the picture), when push the throttle trigger, the car will put on the brakes or double ring astern(according to the different ESC) (see the picture).

Operation Method:

To control it by pushing and pulling back the throttle trigger after power on.

13. FAILSAFE FUNCION

1.Function

Failsafe aims to prevent out-of-control driving of RC Car or RC Boat. If the Receiver is not able to receive any signal, from the control to Throttle, the parameter of Throttle on Receiver will turn back to its original setting.

2.Setting

- a. Turn on the Transmitter switch;
- b. Turn on the Receiver switch, the LED will be lighting;
- c. Adjust Transmitter's Throttle, make the car/boat to stop or flameout, then keep still.
- d. Press the "Setting" button on Receiver (as the pic below), the LED will be flashing, then stop after 3seconds around, which means setting finished.

3.Testing

- a. Turn on the Transmitter switch;
- b. Turn on the Receiver switch;
- c. Turn off the Transmitter switch;
- d. Servo of Throttle will turn back to its original setting automatically;
- e. Setting is successful if above procedures finished completely.



14. SIMULATE

Function Introduction:

This function is for the virtual RC racing through the computer, you can practise the racing from the computer.

Operation Method:

1. Hook up the DSC port of your Transmitter to the USB adaptor (GT-USB-SIM) and plug the USB adaptor into your PC notebook.
2. Turn on the Transmitter.
3. Open the VRC software.
4. Follow the on-screen instruction to set.

Remark:

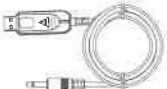
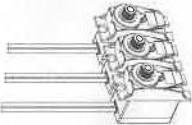
The VRC software we provided is free which is offer only one basic track and training ground. If you need any other track, please contact VRC Company, thank you!



TO COMPUTER USB PORT

2 Channel Transmitter HK-GT2E

16. PACKAGING WITH CONTENT LIST

NO	Model	Sum	Remarks
1	2 channel 2.4G transmitter 	1	
2	3channel 2.4G receiver 	1	
3	MANUAL 	1	
4	GT-USB-SIM 		Optional
	SERVO 	2	Optional

Warning

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

Declaration of Conformity

Hereby, Dynamic Model Design Limited declares that the Radio Equipment is in compliance with RED 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.hobbyking.com



 WARNING

Read instructions before operating



MADE IN CHINA

FCC ID : NAFLYSKYGT2E