



## FLYSKY FS-R4A Three-In-One Receiver Instructions

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# FLYSKY

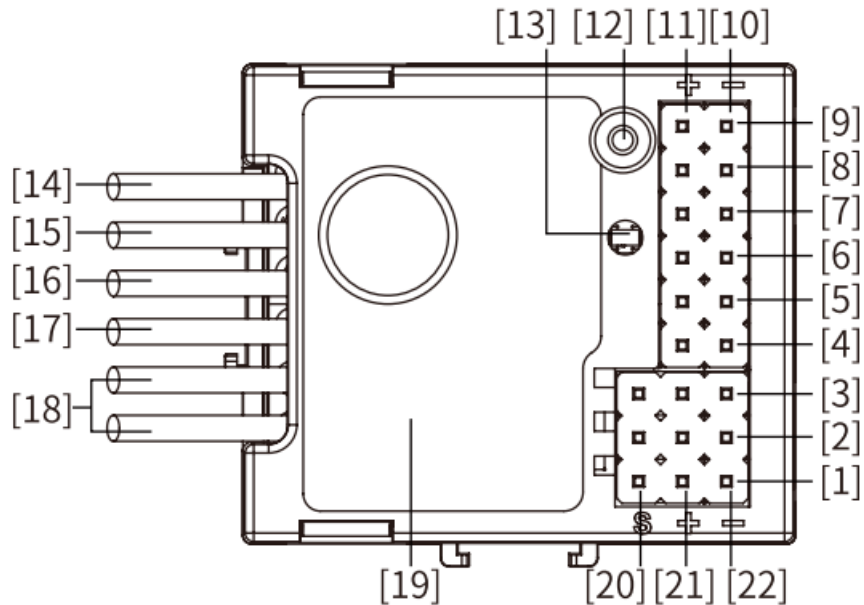
### FLYSKY FS-R4A Three-In-One Receiver



## Introduction

FS-R4A based on ANT protocol is a three-in-one receiver with ESC and LED light group control board. It has an external single antenna, can output PWM signal and light control signal, can implement two-way transmission, adopts automatic binding, and has a compact design, which can be adapted to various models.

## Receiver overview



1. CH1
2. CH3
3. CH4
4. Left Light port
5. Right Light port
6. Head Light port
7. Tail Light port
8. Ambient Light port
9. Roof Light
10. Light port“-”
11. Light port“+”
12. Antenna
13. LED
14. Battery line“-”
15. Battery line“+”
16. Motor line“M-”
17. Motor line “M+”
18. Power switch line
19. Stickers
20. Channel port “S ”
21. ]Channel port“+”
22. Channel port“-”

## Product specification

- Product Name: FS-R4A
- Adaptive transmitter: FS-MG41
- Model Type: Car
- Channels: 4
- Numbers of Light Interfaces 6
- RF: 2.4GHz ISM
- 2.4G Protocol: ANT
- Antenna: Single Antenna
- Input Power: Lipo 2S /NiMH(5~7Cell) BEC Output: 6V/1A
- Continuous / Peak Current 10A/50A Data Output: PWM
- Temperature Range: -10°C—+60°C Humidity Limit: 20%~95%
- Waterproof: PPX4
- Online Update: No
- Dimensions: 33mm\*29mm\*14mm Weight: 12.7g
- Certification: CE FCC ID:N4ZR4A00

## Binding

The receiver automatically enters the binding state once it is powered on.

1. Press the BIND key to turn on the transmitter and allow it to enter its binding state. Here, G.LED flashes quickly, and operator releases the BIND key.
2. When the receiver is powered on and waits for 1 second, it will automatically enter the binding state if it is not connected;
3. After the binding is successful, the LED indicator of the receiver is always on.

**Notes:** Set the transmitter to its binding state first, and then set the receiver to its binding state. If the binding is not completed within 10s, the indicator light of the receiver will enter its slow flashing state.

If re-binding is successful, all the settings of the car lights will be restored to their default values.

## ESC protection

This receiver's have multiple prompt functions such as power-on self-check display, overheating alarm prompt, and low/high voltage alarm prompt.

- Self-check display: all car lights will be on for 1S when the receiver is powered on;
- Overheating alarm: When the internal temperature of the ESC is detected to exceed 110°C ,motor has no output, all car lights flash promptly, and the normal output will be restored when the temperature is lower than 70°C

## ESC protection

Low /high voltage alarm: When the receiver enters the low voltage protection, motor has no output, and all the lights flash slowly; when the receiver enters the high voltage protection, all channels have no output. All car lights

flash promptly.

### **Car light control**

The car light control is mainly to implement the changeover of lighting states and lighting modes by setting the transmitter. This receiver's car lights have multiple prompt functions such as power-on self-check, overheating alarm and low/high voltage alarm, etc.

#### **1. Control mode of the car light ON/OFF:**

- The car light control is divided into four-channel control and two-channel control. Switching between the two control modes can be implemented by turning on the transmitter, turning the handwheel clockwise to the maximum stroke, and turning on the power supply of the receiver.
- When switching to four-channel control, the rightmost position of CH3 turns on the car lights, and the leftmost position turns off the car lights.
- When switching to two-channel control, turn the handwheel quickly to its maximum stroke twice clockwise to turn on the emergency light, and turn off by repeating the action; Turn the handwheel counterclockwise to its maximum stroke to turn on the width indicator light or breathing/flashing light, and turn it off by repeating the action.

#### **2. Four modes/states of car light operation:**

- Normal mode: Turn the handwheel to the left, left turn signal flashes slowly; Turn the handwheel to the right, right turn signal flashes slowly; Set CH3 to its rightmost position, the headlights enter into high-luminance state and the tail lights enter into their low-luminance state; When brake is applied/gearbox is shifted to reverse gear, tail lights enter into their high-luminance state; Press CH4, the emergency lights flash slowly.
- Sports mode: Turn the handwheel to the left, left turn signal flashes slowly; Turn the handwheel to the right, right turn signal flashes slowly; When gearbox is shifted to forward gear, the headlights enter into their high-luminance state; When brake is applied/gearbox is shifted to reverse gear, the tail lights enter into their low-luminance state; Press CH4, the emergency lights flash slowly.
- Breathing mode: All lights (including roof lights and ambient lights) breathe and flash; Set CH3 to its rightmost position to turn on all car lights, and set CH3 to its leftmost position to turn off all car lights.
- Sharp flash mode: All lights (including roof lights and ambient lights) flash; Set CH3 to its rightmost position to turn on all car lights, and set CH3 to its leftmost position to turn off all car lights.
- Switch Method: Quickly press CH4 twice to switch the modes.
- The above method is intended for using CH3 to control lighting/width light or emergency light. Please refer to 2 for details on handwheel control.

#### **3. Working modes of ambient light and roof light:**

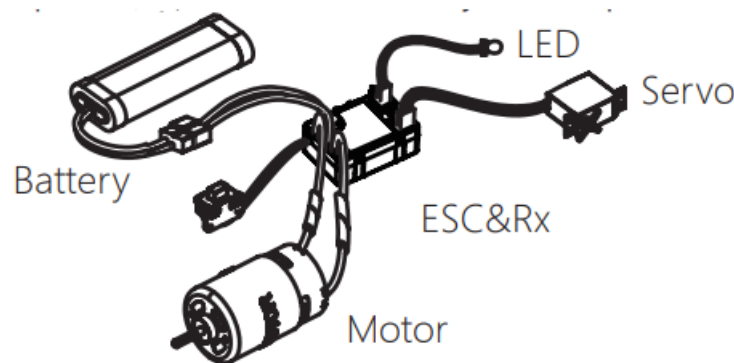
- Ambient light and roof light include two working modes: single mode and combined mode, which can be adjusted and used in normal mode and sports mode, but can not be used in breathing mode and flash mode; In the separate mode, the ambient light and the roof light are independently controlled and do not interfere with each other; In the combined mode, the ambient light and the roof light work together and can be controlled uniformly. The two working modes can be switched when the handwheel is turned clockwise to its maximum stroke four times.
- The combined mode includes three working modes: quick flashing, breathing and OFF. Different flashing modes can be switched when the handwheel is turned clockwise to its maximum stroke three times.
- In the single mode, the ambient light has four working modes: breathing, sharp flashing, three quick flashing one long lighting-off and OFF. Different modes can be switched when the handwheel is turned

clockwise to its maximum stroke three times; The roof light has three working modes: always on, slowly flashing, and OFF, and it can be switched to different modes when the handwheel is turned counterclockwise to its maximum stroke three times.

#### Notes:

1. If the front and tail lights are contrary to the actual control, the control mode of the front and tail lights should be reversed. When the transmitter is turned on, turn and keep the hand wheel counterclockwise to its maximum stroke, and power on the receiver to conduct the switchover; If the left and right turn signals are contrary to the actual control, it is only necessary to exchange the left and right light wires at the car light interface.
2. If CH1 is set with channel reversal, all the above handwheel operations should be operated in the reverse direction (change clock wise for counterclockwise, and change counterclockwise for clockwise).
3. The direction CH1 and accelerator CH2 for car light control are capable of automatic neutral position identifying.

#### ESC function instructions



1. Connect related equipment
  - Make sure the ESC is off before connection. Connect the motor with M+ and M- of ESC. Connect the steering servo to the 3Pin interface marked with "ST" of ESC (- + S connected correspondingly). Connect the battery with the positive and negative poles of ESC correspondingly.
2. **Normal boot, identification throttle midpoint:**
  - After connecting related equipment as step 1, turn on the radio first, move the throttle trigger to the neutral position. Turn on the switch of ESC at last. The receiver will automatically recognize the battery type when it is powered on again. then can run it.

#### Note:

- The ESC can be run after completing self-inspection (about 3 seconds) if power on, otherwise it cannot be operated normally.
- If there is no power output and the red light of ESC flashes quickly after power on, Please check whether the throttle trim of the transmitter is set to the "0" position, the receiver will automatically recognize the midpoint of the trim throttle after restarting;
- If the rotation direction is not correct during running, exchange the two wires connecting motor and ESC.

- To make sure everything is ok, please turn on the radio first and finally turn on the ESC, turn off the ESC first and finally turn off the radio.

**Note:** Please refer to the relevant sections for details about the battery type, drag brake force and running mode of the ESC.

## Failsafe

This function is used to protect the safety of the model and the operator when the receiver cannot normally receive the signal from the transmitter and is out of control. The receiver defaults that the throttle channel is fixed to be out of control and enters the brake state. other channels has no signal output. If you set it on the transmitter, it will output according to the set value.

### Attention:

- Make sure the product is installed and calibrated correctly, failure to do so may result in serious injury.
- Please carefully check each power device and car frame instructions to ensure the power matching is reasonable before use. Avoid damaging power system due to incorrect matching.
- Do not let the external temperature of the system exceed 90°C /194 °F , because high temperature will damage the power system.
- Make sure the receiver's battery is disconnected before turning off the transmitter, failure to do so may lead to unintended operation or loss of control.
- After use, remember to disconnect the battery and the ESC. If the battery isn't disconnected, the ESC will consume electric energy all the time even if it is off. It will discharge completely if connect the battery for a long time, thus resulting in the failure of the battery or the ESC. We are not responsible for any damage caused by this!
- Make sure the receiver is mounted away from motors or any device that emits excessive electrical noise.
- Keep the receiver's antenna at least 1cm away from conductive materials such as carbon or metal.
- Do not power on the receiver during the setup process to prevent loss of control.

## Certification

### FCC Compliance Statement

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.

**Warning:** changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

### EU DoC Declaration

Hereby, [Flysky Technology co., ltd] declares that the Radio Equipment FS-R4A] is in compliance with RED 2014/53/EU.

The full text of the EU DoC is available at the following internet address: [www.flysky-cn.com](http://www.flysky-cn.com).

### RF Exposure Compliance

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.


### Environmentally friendly disposal

Old electrical appliances must not be disposed of together with the residual waste, but have to be disposed of separately. The disposal at the communal collecting point via private persons is for free. The owner of old appliances is responsible to bring the appliances to these collecting points or to similar collection points. With this little personal effort, you contribute to recycle valuable raw materials and the treatment of toxic substances.

<http://www.flysky-cn.com>

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### Documents / Resources

	<p><a href="#">FLYSKY FS-R4A Three-In-One Receiver</a> [pdf] Instructions R4A00, N4ZR4A00, FS-R4A Three-In-One Receiver, FS-R4A, Three-In-One Receiver</p>
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