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› elechawk RC Remote Controlled On/Off Electronic Switch Relay (4A) User Manual

elechawk RCSW84

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Brand: elechawk

Model: RCSW84

1. INTRODUCTION

The elechawk 4A RC Remote Controlled Electronic Switch Relay is designed to provide remote on/off control for various auxiliary electrical items on your RC models. This switch is compatible with RC cars, trucks, boats, LED lights, drones, smoke systems, bomb drops, and plane canopies. It connects to an auxiliary (AUX) channel on your receiver, allowing you to toggle connected devices using your transmitter.

2. PACKAGE CONTENTS

Upon opening the package, you should find the following items:

- 1 x elechawk RC Switch
- 1 x JST to Futaba/JR Cable

3. FEATURES

- **Remote Control:** Easily turn on or off lights, smoke systems, bomb drops, or other auxiliary electrical items directly from your remote controller or transmitter.
- **Simple Installation:** Designed for plug-and-play use with minimal setup required.
- **Wide Compatibility:** Suitable for various RC applications including cars, trucks, planes, helicopters, quadcopters, and drones.
- **Broad Voltage Range:** Supports an input voltage (DC) of 3.7V to 15V.
- **Continuous Current:** Handles a continuous load current (DC) of up to 4A.
- **Status Indicator:** An integrated LED illuminates when the RC switch is closed (ON) and turns off when the switch is open (OFF).

4. SPECIFICATIONS

Specification	Value
Model	RCSW84
Connector Type	Plug-In
Contact Material	Silver
Contact Type	Normally Open
Current Rating	4 Amps (Continuous)
Mounting Type	Plug In Mount
Operation Mode	Automatic
Wattage	60 watts
Coil Voltage	15 Volts
Maximum Switching Current	4 Amps
Maximum Switching Voltage	15 Volts
Minimum Switching Voltage	3.9 Volts (DC)
RX Lead Length	100mm
Power Out Lead Length	100mm
Item Weight	10 Grams

5. SETUP AND INSTALLATION

Follow these steps to correctly install and set up your elechawk RC Switch:

1. **Connect to Receiver:** Plug the signal lead of the RC switch into an available auxiliary (AUX) channel on your RC receiver. The switch can be connected to any desired channel.
2. **Connect Power Input:** Connect your power source (e.g., battery) to the power input port of the RC switch. Ensure the input voltage is within the specified range of 3.9V to 15V DC.
3. **Connect Load:** Connect the electrical item you wish to control (e.g., LED lights, smoke system) to the power output port of the RC switch. The output voltage will be equal to the input voltage when the switch is activated.
4. **Transmitter Setup:** Ensure that the throw for the channel connected to the RC switch on your radio transmitter is set to +/- 100% for optimal operation. No complex setup is typically required beyond this.



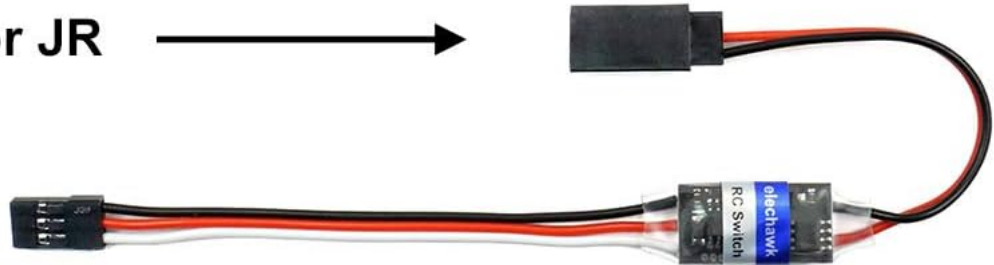
Figure 5.1: Connection diagram for the RC switch, illustrating how to connect the receiver signal, power input, and power output to a load. The diagram also shows the wide input voltage range of 3.9V to 15V and that output voltage equals input voltage when the switch is on.



Figure 5.2: The RC switch is shown connected to a receiver and controlling a set of small LED lights. Below, two different types of RC transmitters (a pistol grip and a stick transmitter) are displayed, indicating the switch's compatibility with various control systems and loads.

Output port compatible with 3 type

Futaba or JR



JST →



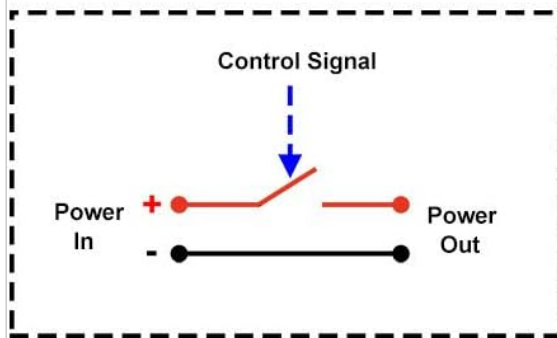
Figure 5.3: This image illustrates the output port compatibility of the RC switch, showing how it can be connected using either Futaba/JR or JST type connectors.

6. OPERATING INSTRUCTIONS

Once the RC switch is correctly installed, operating it is straightforward:

- **Toggle Switch:** Use the corresponding switch or button on your RC transmitter that is assigned to the auxiliary channel where the RC switch is connected. Toggling this control will switch the connected load on or off.
- **PWM Duty Cycle:** The switch activates (turns ON) when the PWM duty cycle from the receiver is greater than 1600us. It deactivates (turns OFF) when the PWM duty cycle is less than 1400us.
- **LED Indicator:** The integrated LED on the RC switch will illuminate when the switch is closed (ON) and the load is receiving power. The LED will turn off when the switch is open (OFF) and the load is not receiving power.

wide input voltage range 3.9V to 15V
output voltage equal input voltage when switch on



Power Output Port
(the voltage equal input voltage when switch on)



Receiver Signal and
Power Input Port
(3.9V-15V)

Maximum Continuous Current: 4A

Figure 6.1: This image demonstrates the operation of the RC switch. A user is shown using an RC transmitter to control an RC receiver, which is connected to the RC switch. The switch then powers an LED light strip, and its red LED indicator shows the on/off status.

Output Voltage

when switch off, the output voltage equal 0 volt
when switch on, the output voltage equal input voltage

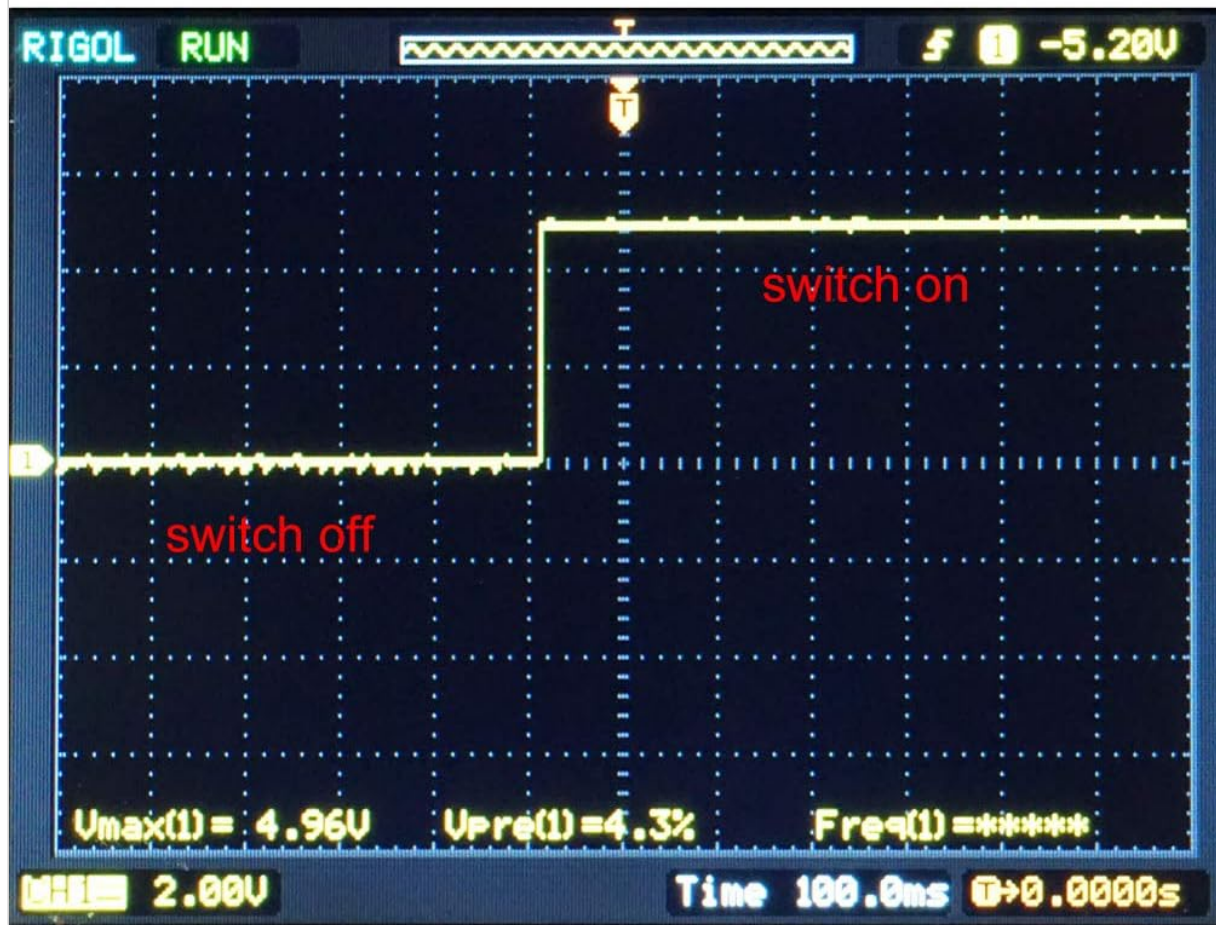


Figure 6.2: An oscilloscope screen displays the output voltage behavior of the RC switch. It clearly shows that the output voltage is 0 volts when the switch is off, and it matches the input voltage when the switch is turned on.

Official Product Videos

Video 6.3: This video demonstrates how to use the elechawk RC switch, showing its connection to an AUX channel of the receiver, power supply, and load. It illustrates toggling the switch to turn on or off a light and a buzzer, and explains that the output voltage equals the input voltage when the RC switch is closed.

Video 6.4: This video provides a detailed guide on how to use the elechawk RC switch, demonstrating its functionality and connection process for various RC applications.

Video 6.5: This video demonstrates the use of the CH3 Control LED Light Lamp Panel Control Switch, which is compatible with the elechawk RC switch for controlling LED lights.

7. MAINTENANCE

The elechawk RC Switch is designed for durability and requires minimal maintenance. To ensure its longevity and optimal performance:

- **Keep Clean:** Regularly inspect the switch and its connections for dirt, dust, or debris. Clean gently with a

soft, dry cloth if necessary.

- **Check Connections:** Periodically verify that all connections (to the receiver, power source, and load) are secure and free from corrosion.
- **Avoid Overload:** Do not exceed the maximum continuous current rating of 4A to prevent damage to the switch or connected devices.
- **Storage:** When not in use for extended periods, store the switch in a dry, cool environment away from direct sunlight and extreme temperatures.

8. TROUBLESHOOTING

If you encounter issues with your elechawk RC Switch, consider the following troubleshooting steps:

- **No Power to Load:**
 - Check all connections to ensure they are firm and correctly plugged in.
 - Verify that the power source is providing adequate voltage (3.9V-15V DC) and is charged.
 - Confirm that the auxiliary channel on your receiver is functioning correctly and the transmitter control is properly assigned and toggled.
 - Ensure the load itself is not faulty by testing it directly if possible.
- **LED Indicator Not Working:**
 - If the load is receiving power but the LED is off, there might be an issue with the LED itself. The switch should still function.
 - If neither the load nor the LED works, refer to the 'No Power to Load' steps.
- **Intermittent Operation:**
 - Check for loose connections or damaged wiring.
 - Ensure there is no interference affecting your RC signal.
 - Verify the PWM duty cycle settings on your transmitter are stable and within the operational range for the switch.

9. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the documentation provided with your purchase or contact elechawk customer service through their official channels. Keep your proof of purchase for any warranty claims.