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› DieseRC Tuya 1 Channel WiFi Smart Switch User Manual

DieseRC TY-1CH

DieseRC Tuya 1 Channel WiFi Smart Switch User Manual

Model: TY-1CH

1. INTRODUCTION

This user manual provides comprehensive instructions for the installation, setup, and operation of your DieseRC Tuya 1 Channel WiFi Smart Switch. Please read this manual carefully before using the product to ensure proper functionality and safety. Keep this manual for future reference.

2. PRODUCT OVERVIEW

The DieseRC Tuya 1 Channel WiFi Smart Switch is a versatile relay module designed for remote control of various devices. It integrates both WiFi and RF 433Mhz capabilities, allowing control via smartphone applications (Tuya/Smart Life) and included RF remote controls. This module offers flexible power input options and passive output, making it suitable for a wide range of home automation and industrial applications.



Figure 2.1: DieseRC Tuya 1 Channel WiFi Smart Switch and included RF remote controls. The smart switch is a compact white module with green terminal blocks for wiring, and the two black remote controls feature two buttons each.

3. KEY FEATURES

- **Dual Control:** Supports both WiFi (2.4GHz) via Tuya/Smart Life APP and RF 433Mhz remote control.
- **APP Control:** Remote operation from anywhere via smartphone (Android and iOS) with Tuya or Smart Life applications.
- **Voice Control:** Compatible with Amazon Alexa (Echo / Dot / Spot) and Google Home for hands-free operation.
- **Flexible Operating Modes:** Configurable as inching (momentary) or toggle (latching) mode to suit various applications.
- **Wide Voltage Compatibility:** Supports DC 5V, DC 7V~48V, and AC 7~32V power inputs.
- **Passive Output (Dry Contact):** Features a potential-free contacts relay (Normally Open, Common, Normally Closed pins) for clean switching.
- **High Durability:** Equipped with a 10A high-quality relay, rated for over 400,000 operations.
- **Timing Functions:** Set schedules, timers, and countdowns via the APP.

- **Compact Design:** Small size (65*50*24 mm / 2.6*2.0*1.0 in) for easy installation in various locations.
- **Family Sharing:** Share control of the smart switch with family members through the APP.

4. WHAT'S IN THE BOX

Upon unboxing your DieseRC Tuya 1 Channel WiFi Smart Switch, please verify that all components are present:

- 1 x DieseRC Tuya 1 Channel WiFi Smart Switch Receiver Module
- 2 x RF Remote Control Transmitters (CR2032 batteries included)



Figure 4.1: The smart switch module and the two accompanying RF remote controls.

5. SPECIFICATIONS

Attribute	Value
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Attribute	Value
Product Dimensions	2.56 x 1.97 x 0.94 inches (65 x 50 x 24 mm)
Item Weight	4.66 ounces
Model Number	TY-1CH
Input Voltage	DC 5V (USB), DC 7V~48V, AC 7~32V
Max Load Current	10 Amps
Wireless Connectivity	2.4GHz WiFi, RF 433Mhz
Contact Type	Normally Open (NO), Common (COM), Normally Closed (NC) - Passive Output
Material	Plastic
Manufacturer	DieseRC
Batteries (for remotes)	1 x CR2032 (included)

6. SETUP

6.1 Wiring the Smart Switch

The smart switch offers flexible power input and passive output connections. Ensure power is disconnected before wiring.

- **Power Input:** Connect power to the VIN and GND terminals. The module supports DC 5V (via USB Type-C port), DC 7V~48V, or AC 7~32V.
- **Output Connections:** The relay provides dry contact outputs: Normally Open (NO), Common (COM), and Normally Closed (NC). Connect your device's control wires to these terminals based on your application's requirements.

WIRING DIAGRAM

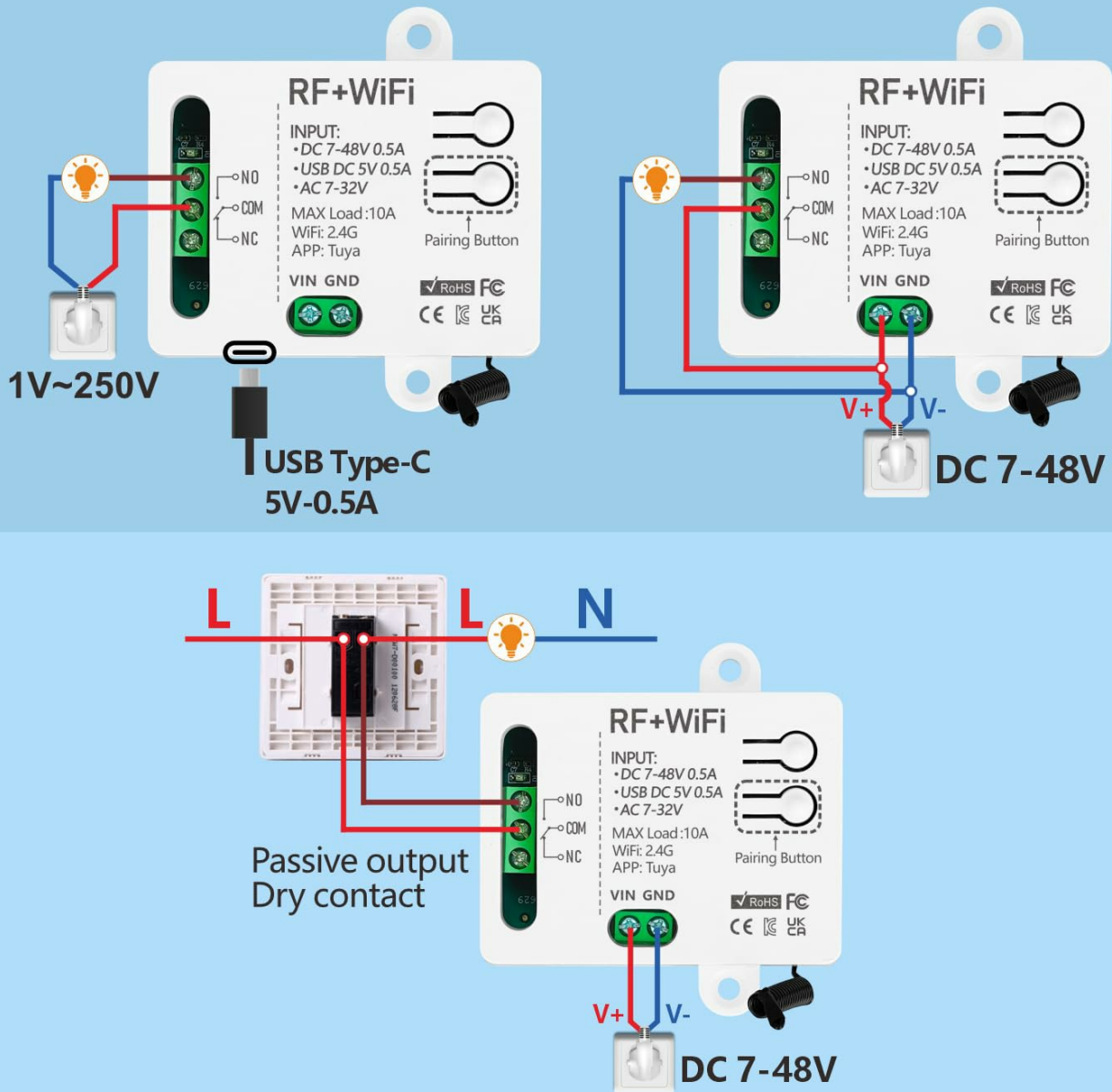


Figure 6.1: Detailed wiring diagrams illustrating various power input methods (USB Type-C, DC 7-48V) and passive output connections for controlling a light bulb or other devices.

The smart switch can be integrated to make almost any device an internet-controlled device by connecting its control inputs to the relay's dry contacts.



Figure 6.2: Illustration of how the smart switch can be wired to existing buttons or control circuits to enable remote control via WiFi or RF.

6.2 App Installation

To control the smart switch via your smartphone, download either the "Tuya Smart" or "Smart Life" application from your device's app store. Both apps are compatible with this device.



Figure 6.3: Scan the QR codes to quickly download the Tuya Smart or Smart Life application. Alternatively, search for "Tuya Smart" or "Smart Life" in your device's app store.

Direct links: [Tuya Smart App](#) | [Smart Life App](#)

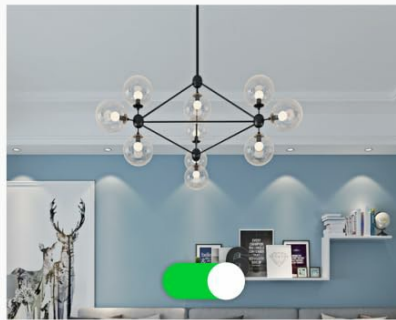
1. Download and install the chosen app (Tuya Smart or Smart Life) on your mobile device.
2. Register a new account or log in if you already have one.

6.3 Device Pairing (App)

Follow these steps to pair your smart switch with the app:

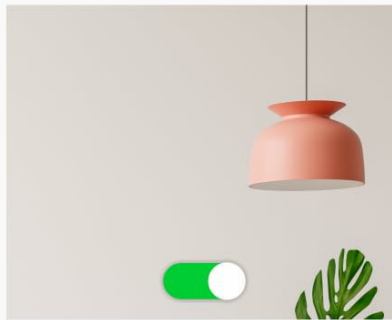
1. Ensure your smart switch is powered on and within range of your 2.4GHz WiFi network.
2. Open the Tuya Smart or Smart Life app.
3. Tap the "+" icon in the top right corner to add a device.
4. Select "Electrical" or "Switch" from the device categories, then choose the appropriate smart switch type.
5. Follow the on-screen instructions to put the device into pairing mode (usually by pressing and holding the pairing button on the module until the WiFi indicator blinks rapidly).
6. Confirm the indicator is blinking rapidly in the app and enter your WiFi network credentials.
7. Wait for the device to connect. Once connected, you can rename the device and assign it to a room.

Timing Function



 **Timing**

16:20 on (once)



 **Schedule**

16:20 on (everyday)



 **Countdown**

00:20 Later off

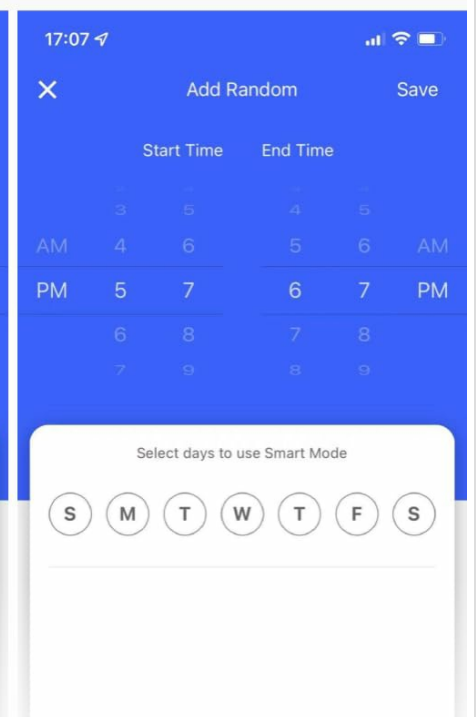
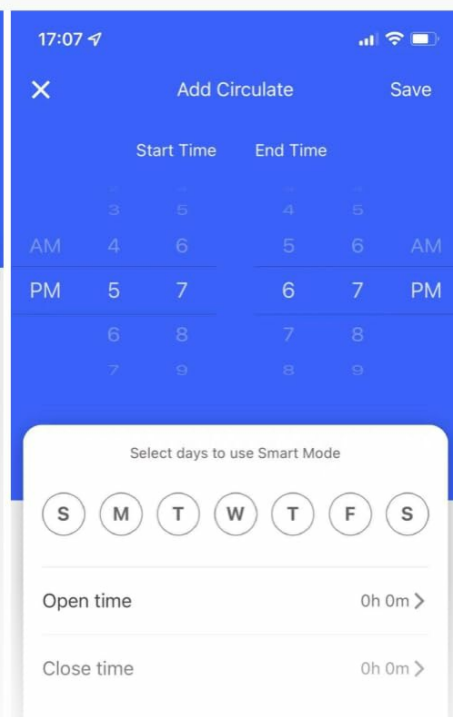
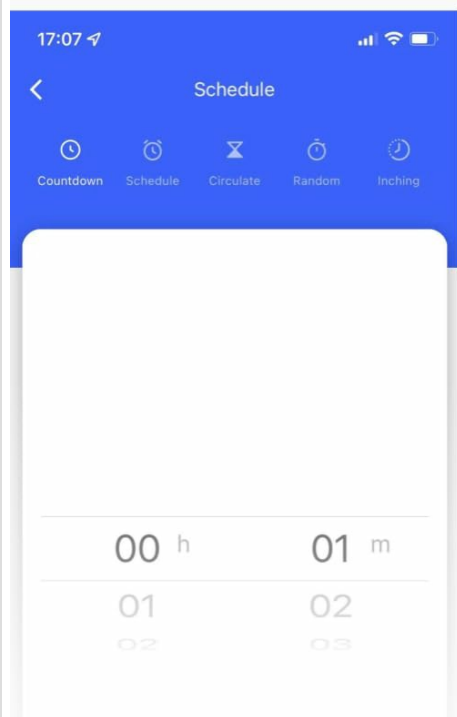


Figure 6.4: The app interface allows for remote control of the smart switch from any location with internet access.

7. OPERATING MODES

The smart switch supports two primary operating modes: Inching (Momentary) and Toggle (Latching). You can configure these modes within the Tuya/Smart Life app.

- **Inching Mode:** In this mode, the relay will activate for a set duration (e.g., 0.5 seconds) and then automatically turn off. This is ideal for applications like garage door openers or electric locks that require a momentary pulse.
- **Toggle Mode:** In this mode, the relay will switch its state (ON to OFF, or OFF to ON) with each command. This is suitable for controlling lights or other devices that require a continuous ON/OFF state.

Electromagnetic lock

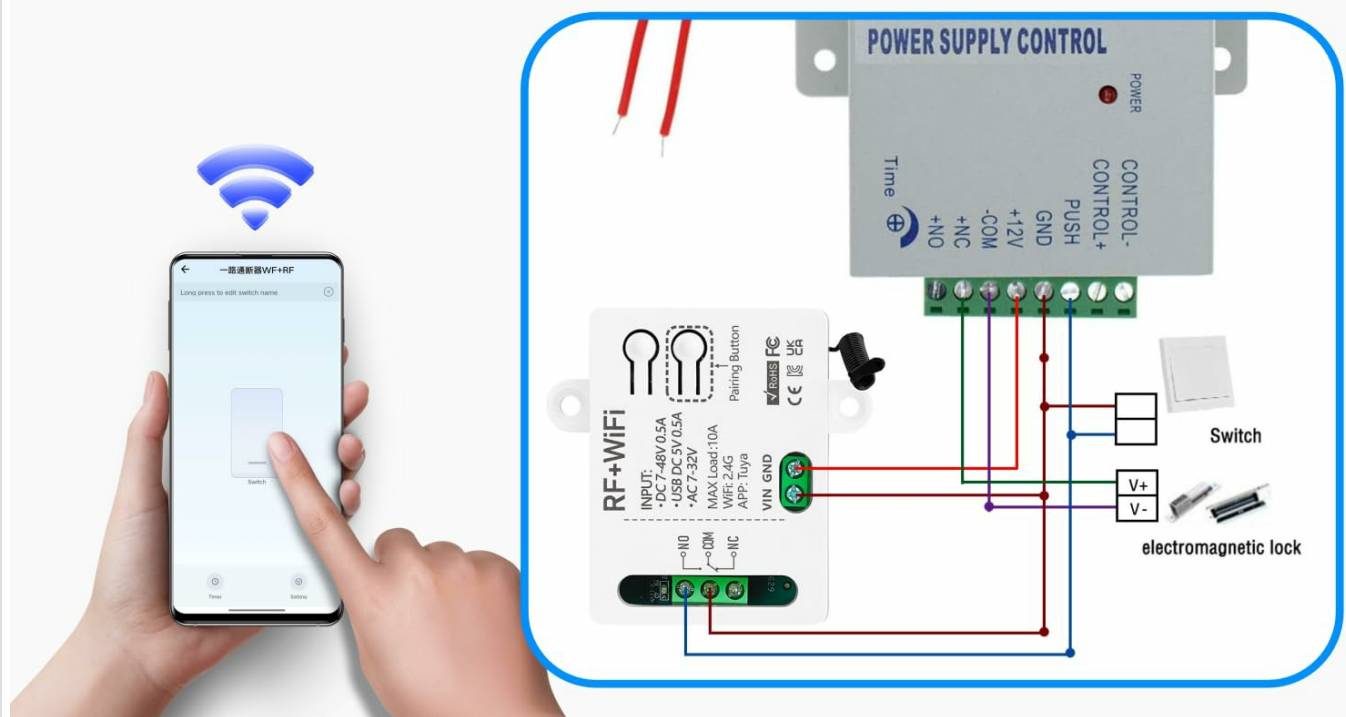
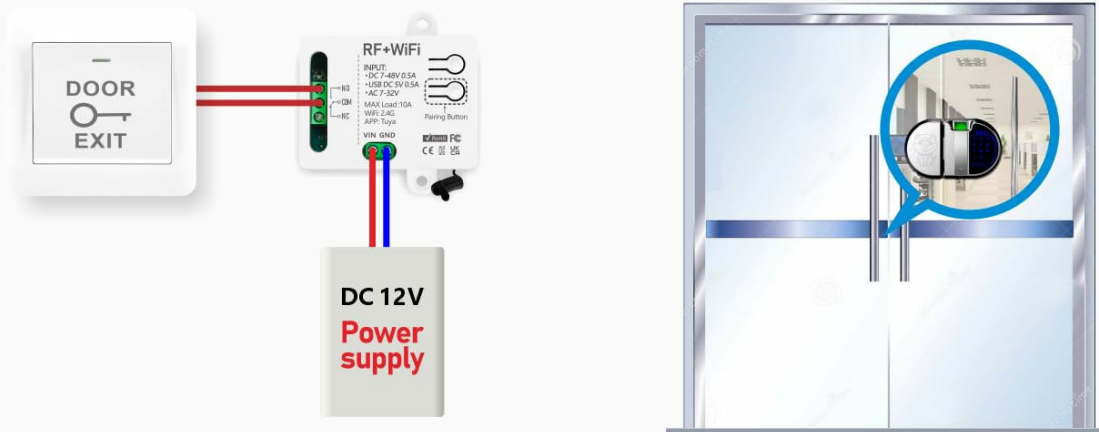


Figure 7.1: Configure the operating mode (inching or toggle) within the device settings in the app.

8. APP CONTROL FUNCTIONS

Beyond basic ON/OFF control, the Tuya/Smart Life app offers advanced functionalities to enhance your smart home experience:

- **Timing:** Set a specific time for the switch to turn ON or OFF once.
- **Schedule:** Create recurring schedules for the switch to operate automatically on specific days and times.
- **Countdown:** Set a countdown timer for the switch to turn ON or OFF after a specified duration.
- **Scene Automation:** Integrate the smart switch into smart scenes with other Tuya-compatible devices (e.g., turn on lights when a motion sensor is triggered).
- **Device Sharing:** Share control of the smart switch with family members, allowing multiple users to manage the device.



Figure 8.1: Examples of timing and scheduling options available in the app for automated control.

9. VOICE CONTROL INTEGRATION

The DieseRC Smart Switch is compatible with popular voice assistants, allowing for convenient hands-free control.

- **Amazon Alexa:** Link your Tuya/Smart Life account with Alexa through the Alexa app.
- **Google Home:** Link your Tuya/Smart Life account with Google Assistant through the Google Home app.

Once linked, you can use voice commands such as:

- "Alexa, turn on [Device Name]."
- "Hey Google, turn off [Device Name]."
- "Alexa, set [Device Name] to *inching mode*." (If supported by the app's voice integration)

Multiple control modes make life more convenient



Figure 9.1: Voice control setup with Amazon Alexa and Google Home devices.

10. RF REMOTE CONTROL PAIRING

The smart switch comes pre-paired with the included RF remote controls. If you need to pair additional remotes or re-pair existing ones, follow these general steps:

1. **Clear Existing Codes (Optional):** To clear all previously paired RF remotes, press the pairing button on the smart switch module multiple times (refer to product specific instructions for exact number of presses, typically 8 times) until the RF indicator light flashes to confirm clearing.
2. **Enter Pairing Mode:** Press the pairing button on the smart switch module once (for toggle mode) or twice (for inching mode) to enter the desired pairing mode. The RF indicator light will illuminate.
3. **Pair Remote:** While the RF indicator is lit, press any button on the RF remote control you wish to pair. The RF indicator on the module will flash and then turn off, indicating successful pairing.
4. Repeat for additional remote buttons or remotes as needed.



Figure 10.1: The smart switch supports multiple control methods, including RF remote control.

11. APPLICATIONS

The DieseRC Tuya 1 Channel WiFi Smart Switch can be used in a variety of settings and for numerous applications due to its versatile design and passive output:

- **Garage Door Openers:** Control your garage door remotely via app or RF remote.
- **Electric Locks:** Integrate with electric door locks for smart access control.
- **Lighting Control:** Turn lights ON/OFF or integrate into smart lighting scenes.
- **Motor Control:** Suitable for controlling DC or AC motors (within specified voltage and current limits).
- **Signal Transmission:** Can be used for various signal transmission applications.
- **DIY Smart Projects:** Ideal for custom home automation projects where dry contact switching is required.



Figure 11.1: Example application: Controlling a garage door with the smart switch.



APP Control

Control your devices anytime, anywhere with Tuya or Smart Life.

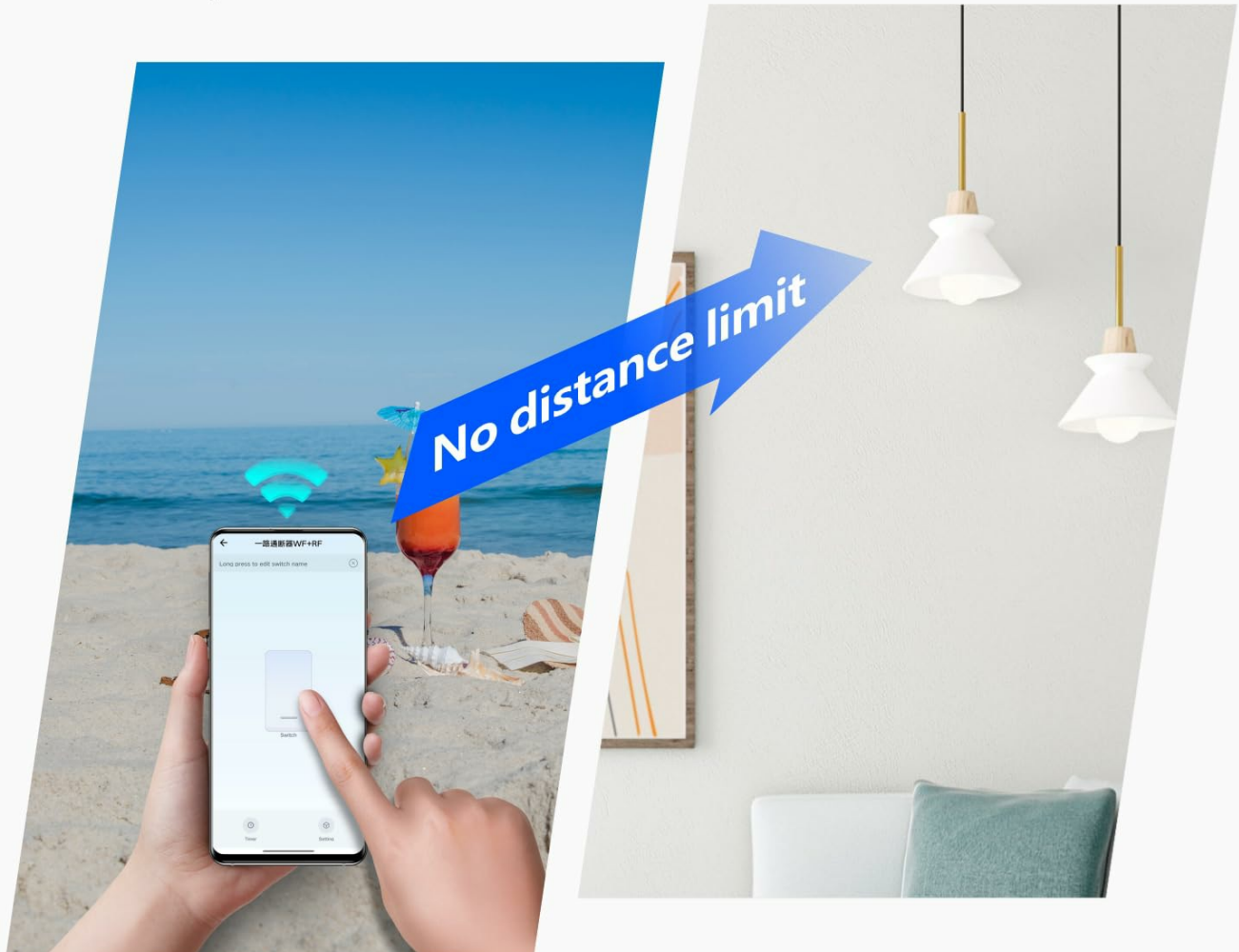


Figure 11.2: Example application: Controlling an electromagnetic lock with the smart switch.

12. TROUBLESHOOTING

If you encounter issues with your DieseRC Tuya 1 Channel WiFi Smart Switch, please refer to the following common problems and solutions:

Problem	Possible Cause / Solution
Device cannot connect to WiFi.	◦ Ensure your WiFi network is 2.4GHz. The device does not support 5GHz WiFi. ◦ Check WiFi signal strength at the device's location. ◦ Verify correct WiFi password entry in the app. ◦ Ensure the device is in pairing mode (WiFi indicator blinking rapidly). ◦ Restart your WiFi router and the smart switch.

Problem	Possible Cause / Solution
RF remote control not working.	◦ Check the battery in the remote control (CR2032). ◦ Ensure the remote is within range of the smart switch. ◦ Re-pair the remote control with the smart switch following the instructions in Section 10.
Device is unresponsive via app or remote.	◦ Verify the smart switch is receiving power. ◦ Check all wiring connections for looseness or incorrect placement. ◦ If controlling via app, ensure your phone has internet access. ◦ Perform a factory reset on the smart switch (refer to specific product instructions for reset procedure, usually holding the pairing button for an extended period) and re-pair.
Timing/Schedule functions not executing.	◦ Ensure the smart switch is connected to WiFi and online in the app. ◦ Verify the time zone settings in the app are correct. ◦ Double-check the schedule or timing configurations for accuracy.

13. MAINTENANCE

The DieseRC Tuya 1 Channel WiFi Smart Switch is designed for low maintenance. To ensure optimal performance and longevity:

- Keep the device clean and free from dust. Use a soft, dry cloth for cleaning.
- Avoid exposing the device to excessive moisture, extreme temperatures, or direct sunlight.
- Do not attempt to disassemble or repair the device yourself. This may void the warranty and pose safety risks.
- Ensure proper ventilation if installed in an enclosed space to prevent overheating.

14. WARRANTY AND SUPPORT

DieseRC is committed to providing high-quality products and excellent customer service. For any questions, technical support, or warranty inquiries regarding your DieseRC Tuya 1 Channel WiFi Smart Switch, please contact us:

- **Manufacturer:** DieseRC
- **Service Email:** dieseelectronic@163.com

Please provide your product model number (TY-1CH) and a detailed description of your issue when contacting support to facilitate a quicker resolution.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

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