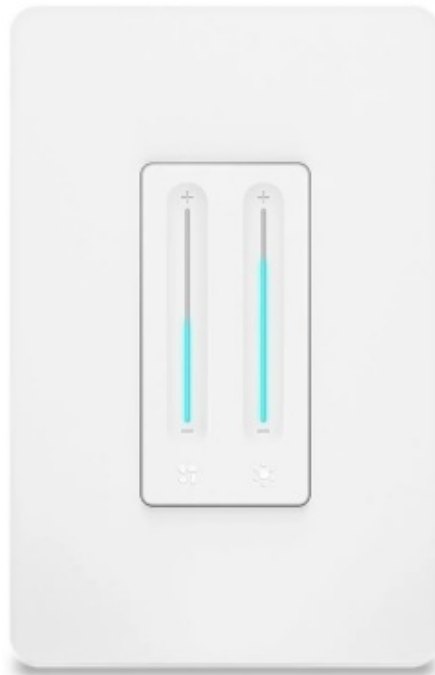




## tp-link KS240 Smart Ceiling Fan Control and Dimmer Switch User Guide

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tp-link KS240 Smart Ceiling Fan Control and Dimmer Switch User Guide



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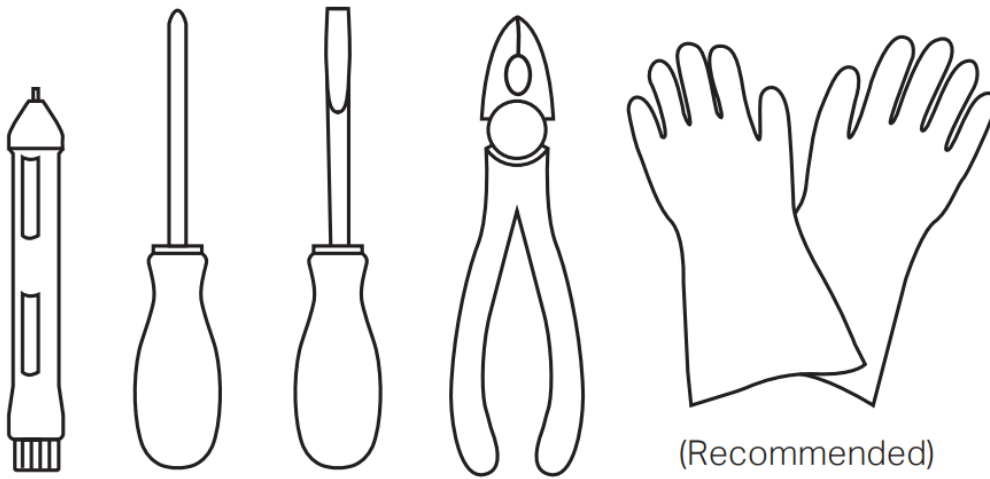
## Before You Start

- Separate load wires for fan and light is required.
- Neutral wire is required to install the smart switch.
- The smart switch is designed for single-pole (one location) wiring (not compatible with 3-way/ multi-way switch wiring).
- Supported fan type: AC motor speed control (most pulling-chain type ceiling fans) with a recommended rating less than 60W.
- DO NOT use to control exhaust fans, DC motor fans and fans with integrated fan speed controls (i.e. fans have a remote control or is bluetooth/ WiFi-enabled)

## Important Note

- For optimal fan performance, please set the fan speed to the highest settings with the independent speed control of your fan, like a pulling chain.
- Take care to avoid electric shocks. Use a voltage detector to test all wires to see that they are de-energized before using the wire label.
- If you find the wiring condition is different from that of this guide, please try another location or consult a qualified electrician for help.

## Tools You'll Need

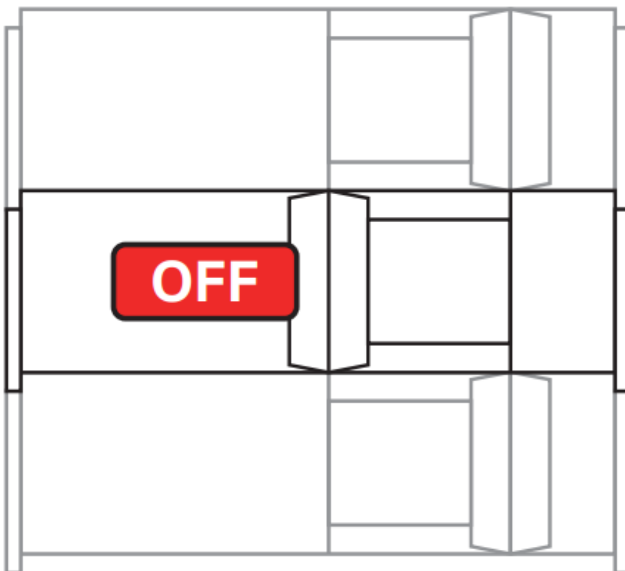


- Pliers
- Electrical Detector
- Philips or Slotted Screwdriver
- Electrical Insulated Gloves

## Wire Your Switch

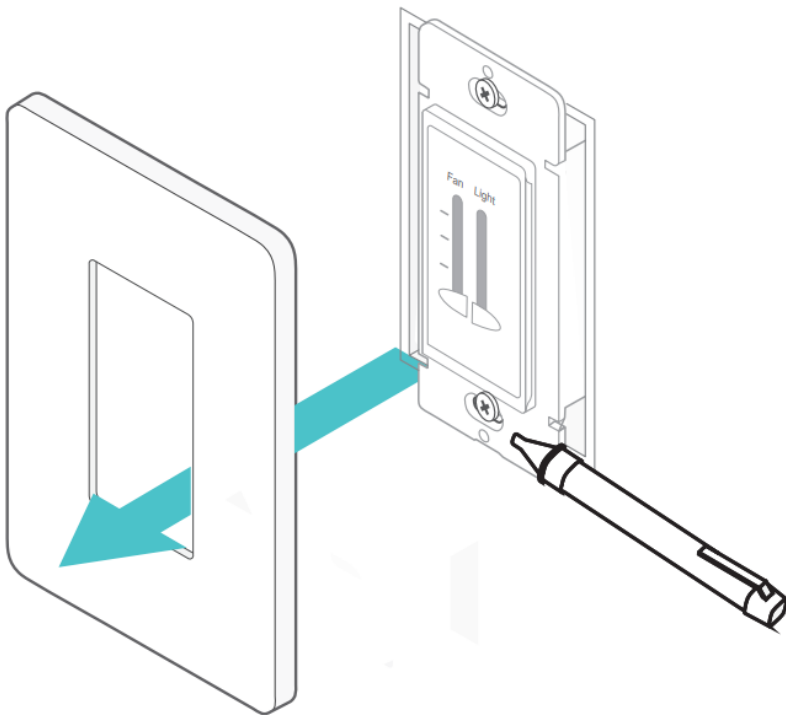
### Turn Power Off & Pull Out the Old Switch

1. Turn off your light and fan of the old switch. Then turn off the circuit breaker. Check your power is off by turning your fan and light on and off a few times before continuing wiring.



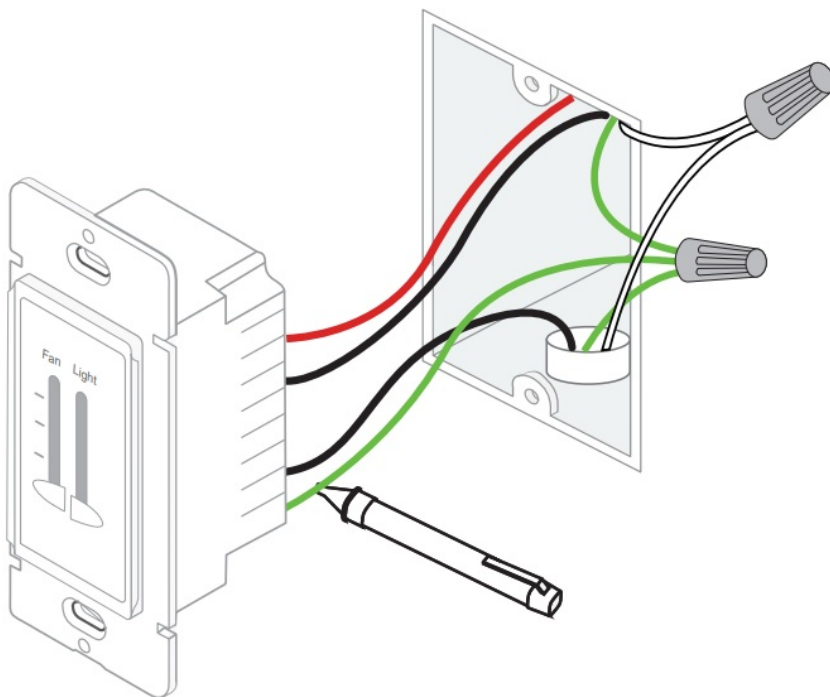
### **CAUTION!**

1. High Voltage – Disconnect power supply before servicing.
  2. If you are not familiar with electrical work, consult a qualified electrician
2. Remove the wallplate of your old switch and use a voltage detector to test terminals and other metal parts of the old switch to confirm that all power is off for the switch.



**Note:** If you find your old switch still energized after turning off the circuit breaker, please consult a qualified electrician for help.

3. Unscrew the old switch and pull it out of the wallbox. Use a voltage detector to test all wires connected to the old switch or in the wallbox to confirm that all power is off for the wallbox.



**Note:** DO NOT remove any wire. You might as well take a picture of the old switch wiring condition for reference.

## Identify the Wires

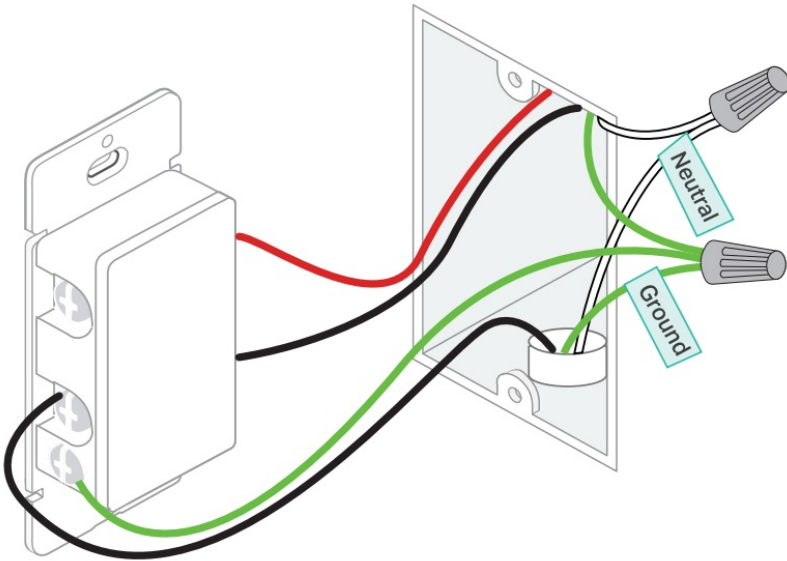
1. Get to know the wires in your wall box
  - **Line (Live/Hot):** Usually black. One end is connected to the circuit breaker, the other to your old switch.
  - **Load:** Usually black or red. One end is connected to the switch, the other to your electrical device.
  - **Neutral:** Usually a bundle of white wires, not connected to the old switch. They may be folded up in the

very back of your wallbox. If the old switch is a smart one, then the neutral wire can be connected to the switch.

- **Ground:** Usually green or bare copper wire.

**Note:** The wire colors used in this guide are recommended by the National Electric Code (NEC). Your actual wire colors may vary.

2. Identify and label the Ground and Neutral wires in the wallbox.

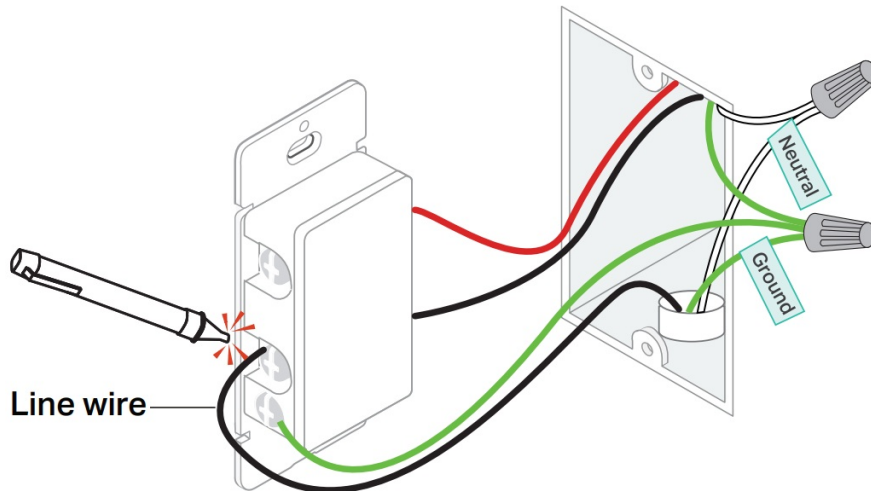


3. Identify and label the Line wires in the wallbox

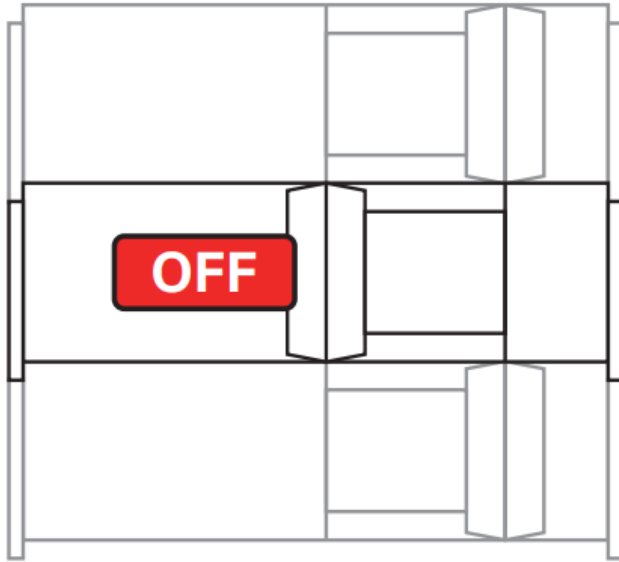
1. Turn on the circuit breaker. Use a voltage detector to identify the energized wire (Line wire).  
Take care to avoid electric shocks.



**Note:** Make sure your old light and fan switch is turned off.

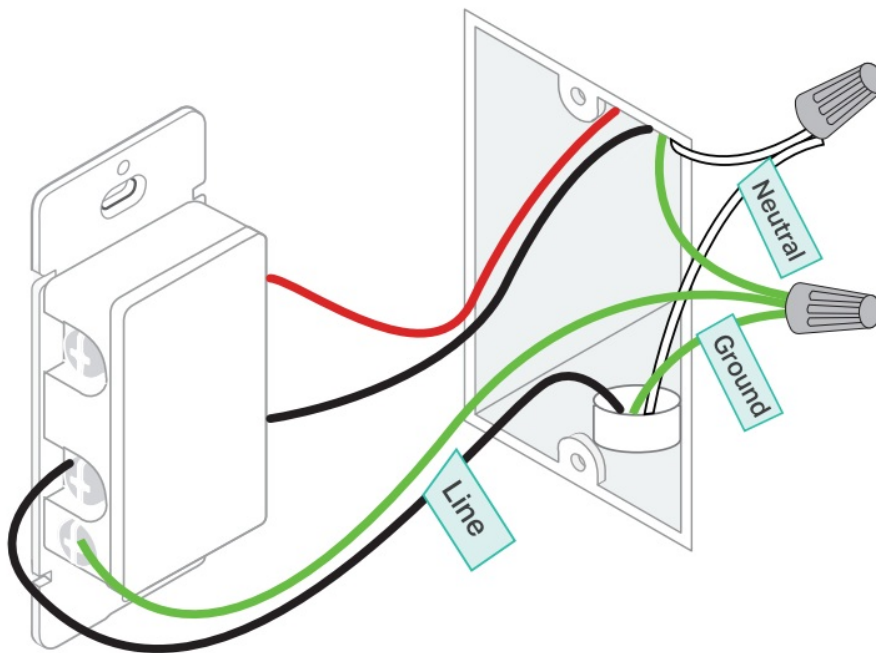


2. **Turn off** the circuit breaker. Check your power is off by turning your fan and light on and off a few times.  
Make sure your old switch is turned off before continuing wiring.



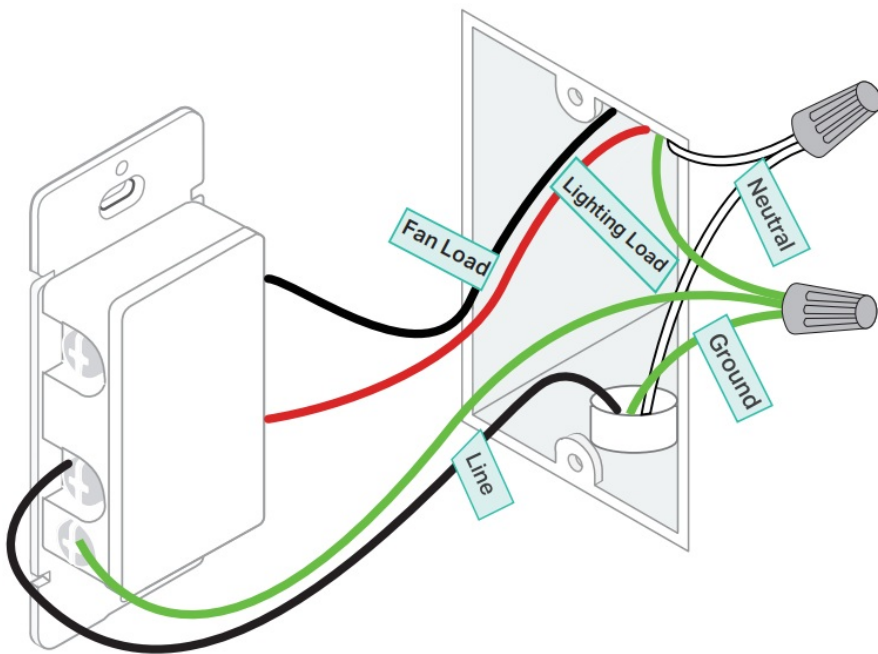
3. Label the energized wire as Line wire.

**Note:** Use a voltage detector to test all wires to see that they are de-energized before using the wire label.



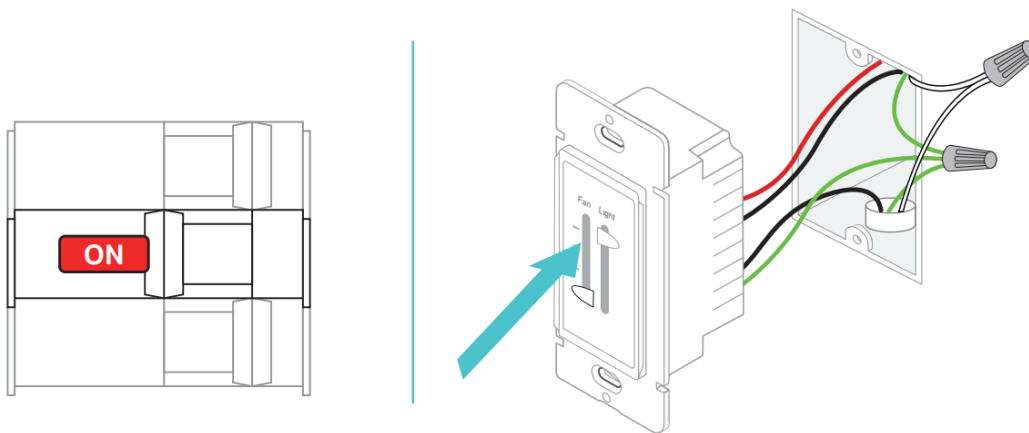
4. Identify the Fan Load and Light Load wires in the wallbox. Label the black/red wire connected to the old fan switch with the Fan Load label. Then label the other one as Lighting Load.

**Note:** Use a voltage detector to test all wires to see that they are de-energized before using the wire label.



If you cannot tell your lighting load from your fan load, follow the next three steps to make it.

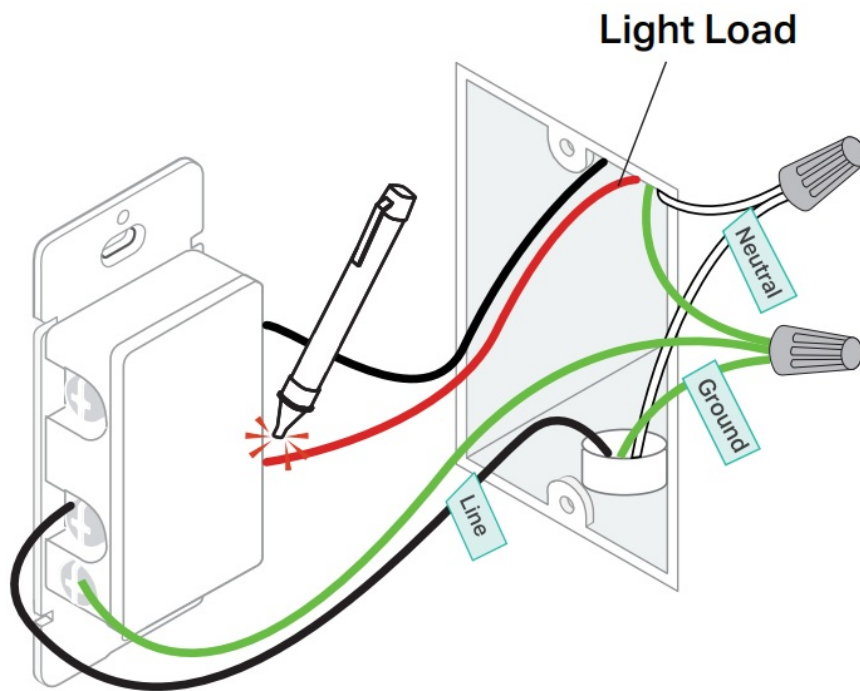
1. **Turn on** your light switch, turn off your fan switch and turn on the circuit breaker to see that your light is working.



2. Use a voltage detector to identify the energized wire among the two load wires. This should be the load wire of your light switch.

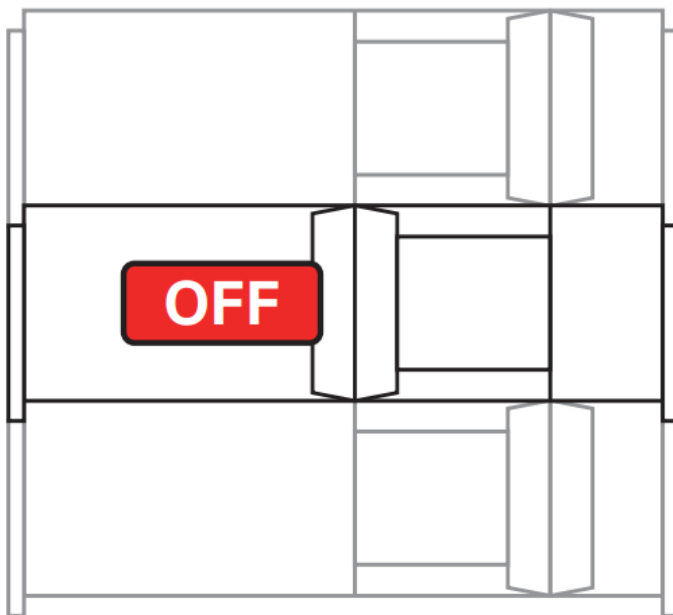


**Take care to avoid electric shocks**



3. **Turn off** the circuit breaker and the light switch. Label the energized wire with the Lighting Load label. Then label the other one as Fan Load.

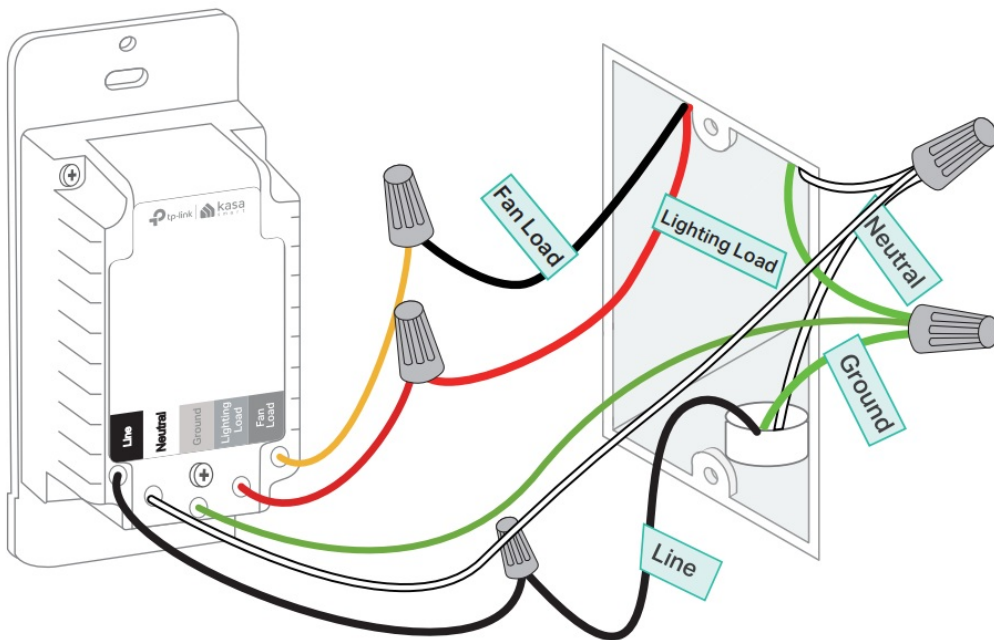
**Note:** Use a voltage detector to test all wires to see that they are de-energized before using the wire label.



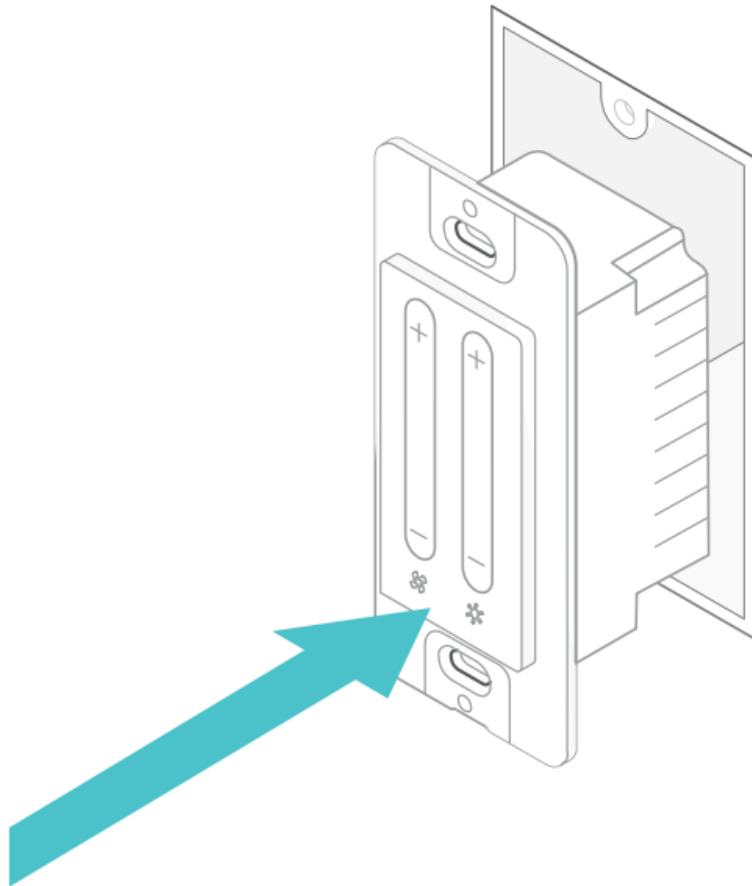
## Remove Old Switch and Install Smart Switch

1. Disconnect all wires from the old switch, and connect them to the smart switch as below.

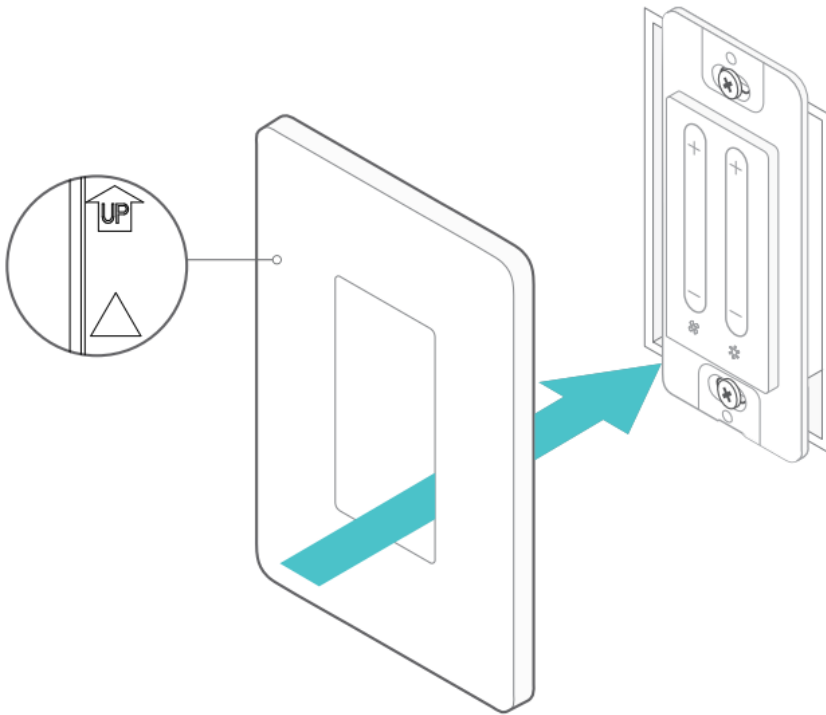




2. Line up the smart switch with the mounting holes. Secure it with screws



3. Ensure the UP arrow on the back of the wallplate points up and attach the wallplate. Then turn on the circuit breaker.



## Set Up Your Switch

### DOWNLOAD KASA

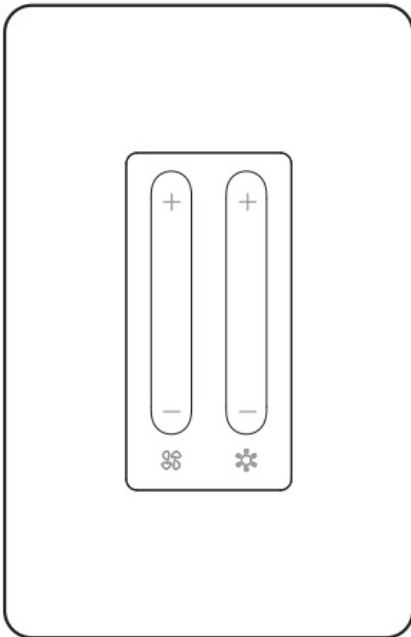
Get the Kasa Smart app from the App Store or Google Play.





## SET UP

Tap the **+** button in the app and select **Smart Switch** and then your model. Then follow the step-by-step app instructions to set up your smart switch.



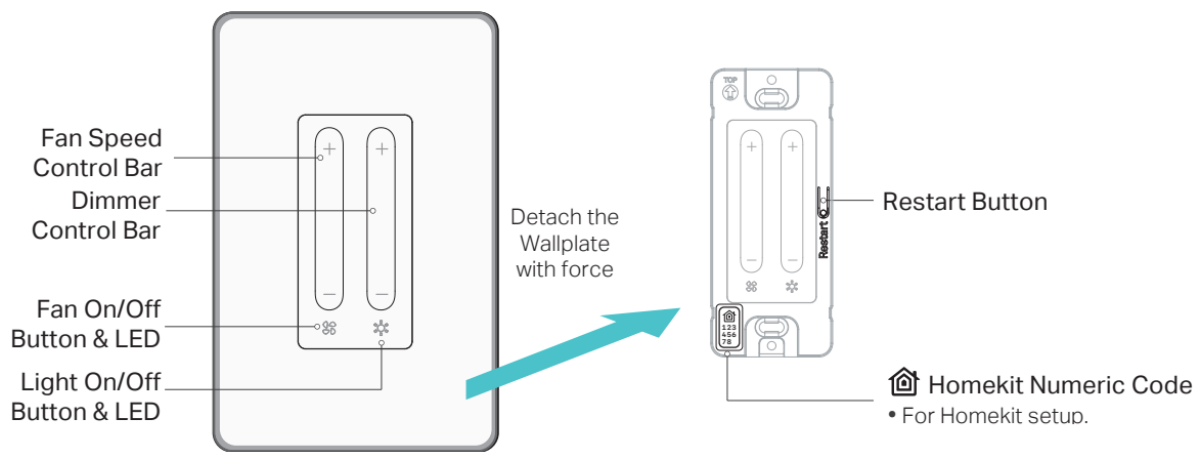
## THIRD-PARTY SERVICES

Kasa works with the Alexa, Google Assistant and other third-party services to control your switch by voice. Go to Me > Third-Party Services in the Kasa Smart app to integrate Third-Party Services .

**For step-by-step setup instructions, please visit:**

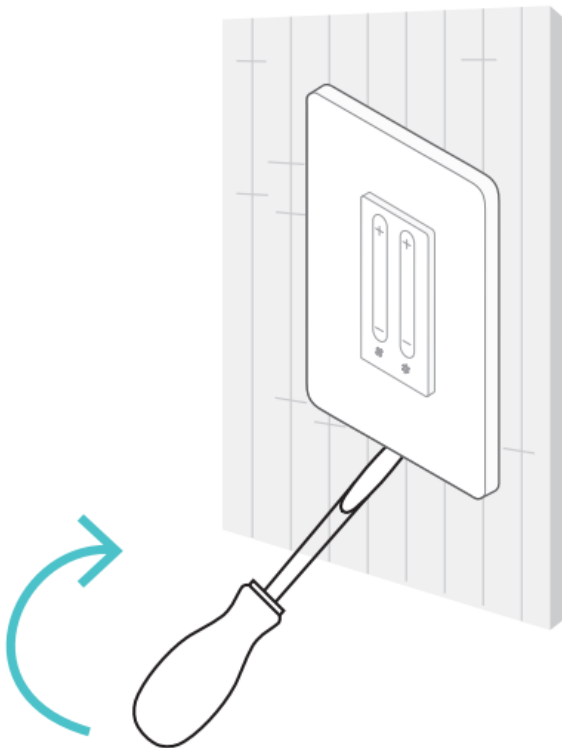
- **Google Home Assistant:**  
<https://www.tp-link.com/support/faq/1534/>
- **Amazon Alexa:**  
<https://www.tp-link.com/support/faq/944/>

## Apperance



## Detach the Wallplate

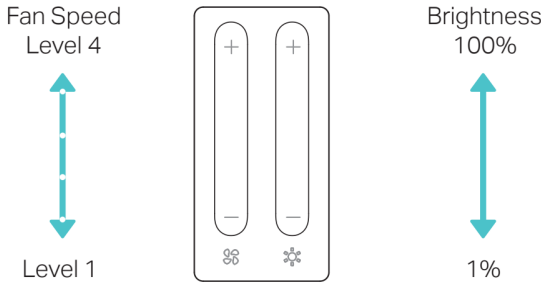
Carefully insert a flat-bladed screw driver the opening at the bottom of the wallplate and pull forward to remove the wallplate.

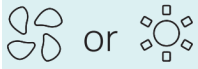


## LED Status

|                              |  |
|------------------------------|--|
| Solid red                    | Starting up;Disconnected from Cloud.   |
| Blinking red & white slowly  | Ready for setup.                       |
| Blinking white quickly       | Connecting to Wi-Fi.                   |
| Solid white                  | Connected to Cloud.                    |
| Blinking red slowly          | Disconnected from Wi-Fi.               |
| Blinking red quickly         | Restoring to factory default settings. |
| Blinking red & white quickly | Resetting Wi-Fi.                       |
| Blinking white slowly        | Firmware updating.                     |

## Button Explanations

|   |  |
|---|--|
|  |  |
| Fan Speed Control Bars: Slide to any of the 4 speed settings.                       | Dimmer Control Bars: Slide to decrease or increase the brightness. |

|   |  |
|---|--|
|  | <p>Single press any of the buttons to turn on/off your switch.</p> <p>Press and hold any of the buttons for about 5s to reset Wi-Fi while keeping other settings.</p> <p>Press and hold any of the buttons for about 10s to restore your switch to factory default settings.</p> |
| Restart   | Press to restart your switch.  |

## Troubleshooting

### Q1: Have any trouble with the wiring?

**A1:** If you fail to wire the smart switch or encounter any troubles in the wiring process, you can visit <https://www.tp-link.com/support/faq/3682/> for the installation FAQ.

### Q2: Cannot find your switch in the setup process?

**A2:** Your smartphone is looking for the smart switch via Bluetooth. If you find it unable to discover your switch, you can: 1. Move your phone closer to the smart switch, and disconnect other Bluetooth devices from your phone. 2. Turn off Bluetooth on your phone, then turn it back on and try again. 3. Restart your switch by single pressing the Restart Button. 4. If the problem persists, press and hold any of the On/Off buttons on the switch for about 10s to restore your switch to factory default settings.


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**Q3: Fail to set up HomeKit for your smart switch?**

**A3:** The following methods can solve almost all the HomeKit onboarding problems: 1. Press and hold any of the On/Off buttons on the switch for about 10s to restore your switch to factory default settings and restart your phone. Then try again. 2. Move your iPhone/iPad and the smart switch closer to the router to get a stronger Wi-Fi signal. 3. HomeKit setup will be disabled in 10 minutes since the smart switch is powered on. You can single press the Restart button and try again. 4. Creating a new home in the Home app can greatly help set up your smart switch. Refer to the FAQ below for detailed troubleshooting: <https://www.tp-link.com/support/faq/3390/>

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**Q4: How to control the LEDs of the smart switch?**

**A4:** You can manage them on the Kasa Smart app. Go to the product page of your device and select  > LED Status. In this section, you can turn on/off your LEDs and set brightness and schedules for them.

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**Q5: Find the lights are too bright when dimming to the minimum level, or they flicker?**

**A5:** Open the Kasa Smart app and go to Device Settings to adjust the dimming range. For Optimal Dimming Performance: Bulbs may vary in their dimming range. Recalibrate the brightness in the Kasa Smart app after changing a bulb

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**Q6: Find the fan speed is too slow?**

**A6:** Ensure that the fan is manually adjusted to highest possible setting with its pulling chain or other independent speed control.

## **Specifications**

- **Rating:** 120V~ 60Hz
- **Lighting Load:** 300W INC/HAL, 150W LED
- **Light Dimming Type:** Leading Edge Dimming / TRIAC Phase Cut
- **Ceiling Fan Load:** 1.5A Max Load, 4-Speed
- **Supported Fan Type:** AC Motor Speed Control
- **Switch Type:** E.D. (Lighting),  $\mu$  (Fan)
- **Operation Temperature:** 0~40°C
- **Required Outlet Box Dimensions:** H > 2.95 in./75 mm, W > 1.81 in./46 mm, D > 2 in./51 mm
- Operating Control, Type 1 action
- Pollution Degree 2, Rated Impulse Voltage 2500 V
- Software Class A, NEMA Type 1

## **Safety Information**

Before installing, servicing or removing the switch, read and follow all safety precautions including the following:

- **CAUTION** – Risk of Electric Shock – More than one disconnect switch may be required to de-energize the equipment before servicing. A circuit breaker which disconnects the Line and Neutral conductor simultaneously is suitable. Ensure power is off at the circuit breaker before removing or installing any switch. Use a non-contact voltage tester to ensure the power is off.
- The Smart Switch must be installed and used in accordance with the National Electric Code (NEC) or your local electrical code. If you are unfamiliar with these codes and requirements, or are uncomfortable performing the installation, consult a qualified electrician.
- Do not install the Smart Switch with wet hands or when standing on wet or damp surfaces.
- Install only in a suitable UL Listed or equivalent outlet box (suitable dimensions: H > 2.95 in./75 mm, W > 1.81 in./46 mm, D > 2 in./51 mm).

## CAUTION

High Voltage-Disconnect power supply before servicing

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

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.
2. This device must accept any interference received, including interference that may cause undesired operation.

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


**Note:** The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

## FCC RF Radiation Exposure Statement:

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

"To comply with FCC RF exposure compliance requirements, this grant is applicable to only Mobile Configurations. The antennas 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 antenna or transmitter."

Documents / Resources

|   |   |
|---|---|
|  | <a href="#">tp-link KS240 Smart Ceiling Fan Control and Dimmer Switch</a> [pdf] User Guide<br>KS240, 2AXJ4KS240, KS240, KS240 Smart Ceiling Fan Control and Dimmer Switch, Smart Ceiling Fan Control and Dimmer Switch, Ceiling Fan Control and Dimmer Switch, Fan Control and Dimmer Switch, Dimmer Switch |
|---|---|

Manuals+.