

CONVERTOR LED CONTROLLER**ITEM: SW05-D31****ITEM DESCRIPTION: 2 Way 2Gang LED Controller, SW05-D31, (In Built UART Wi-Fi Module GWF - KM26)****VERSION: V1.0****DATE: 2023-05-10****1. Product Instruction****1.1 Product Overview**

SW05-D11 is a 2 way combination of 2 channel LED controller. The 1 channel LED controller provides phase cut leading edge control of dimmable LED Light. The other channel can be used as analog controller of dimmable LED lights. The device is to be used in conjunction with exclusive APP, the compact design makes it suitable to be installed in a limited space, such as a wall mount switch box, an electrical control panel, etc. The device can be WiFi connected to an IOT server, allows user to control brightness and monitor power consumption of their dimmable LED lights anytime and anywhere with an exclusive APP.

1.2 Reference Picture

SW05-D31 Converter appearance:



1.3 Product Function

- It can be installed in a wall mounted switch box to control brightness of dimmable LED lights.
- The 2 channel outputs can be controlled locally by 2 individual Bell switches and brightness level of LED lights can be adjusted in 7 steps.
- Smart control dimmable LED lights from minimum to full brightness level by APP with Wi-Fi access (Local and Remote) from anywhere.
- Also support operation of individual channel with Alexa & Google Home.
- Set schedule: Turn ON/OFF your light at select brightness level based on specific time you set.
- Energy consumption monitoring: view the real-time power consumption or review the total electricity usage in a period of time.
- Real-time power review
- User-defined scenes- Group control
- Multiple users control
- Overload feature
- Power On Switch status
- Control history view
- Support STA and AP work mode
- Support 2.4GHz Wi-Fi

2. User Guide

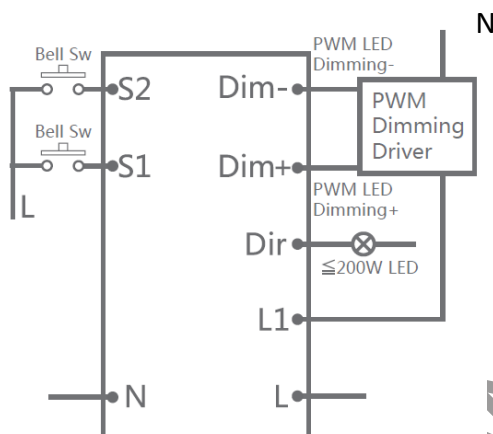
2.1 Pre requisites

- The WiFi switch support local/remote control via 2.4GHz WiFi wireless technology, the device must be used in the environment where 2.4GHz WiFi network is available, and the user must know the WiFi network name (SSID) and corresponding password.
Special Tips: the WiFi network switch connected generally does not need special adjustment, only in a few case, users may need to check working status of WiFi router: Connected devices number, WiFi signal status or the state of surrounding WiFi network.
- To connect the switch to WiFi router, users need to download and install corresponding APP and complete device pairing via APP.
- There is power limitation for load, please note that the max total output power is 150W for Phase cut leading edge LED light control and 300W for Analog LED light control.

2.2 Wiring mode

Note: Before wiring, please power off appliance first, cut off original power line, then wiring WiFi switch by referring to following figure.

The switch can be used to control 1 electrical point of phase cut leading edge LED light and 1 electrical point of analog LED light control as per user requirements, but user must use the device in line of the max power limitation.



Wiring Description:

Special note: Once wiring is completed, please process APP configuration immediately(Add new device). In this process, the reset button would be applied to reset device to make device enter configurable state, so that we need to complete app configuration before locking the wall mounted switchbox.

Identity	I/O	Description
L	Input	AC live line input phase
N	Input	AC neutral line input
Dir	Output	Channel 1, AC live line output to phase cut LED driver
L1	Output	Channel 2, AC live line output to Analog LED driver
Dir+	Output	Analog Dim command 0-10V (DC +ve)
Dir-	Output	Analog Dim command 0-10V (DC -ve)
S1	Input	Doorbell switch input to dim lights
S2	Input	Doorbell switch input to dim lights

2.3 Parameters

SW05-D31

Parameters	Details
ON/OFF control	2 WAY, 2 Channel LED light Control
Application	Phase cut leading edge LED light control + Analog LED light control
Wireless connection	WiFi 2.4 GHz

Rated voltage	240 VAC
Max total output power	150W for Phase cut leading edge LED control, 300W for Analog LED control
WiFi range	30 meters indoor, 45 meters outdoors
APP support	Support Android 6.0 and iOS 11.0 or above
Dimension	62*49.5*22.5mm
Operating Temperature	-10°C ~ +50°C
Operating Humidity	20%~85%(No condensing)

2.4 Control Brightness of Dimmable LED Lights

- 1) Switch ON & OFF the LED Lights by long press of doorbell switch less than and equal to 2 secs. The LED light turns ON with last brightness level.
- 2) Change the brightness level of the LED light by long press (more than 2 secs) of the doorbell switch and brightness level shall increase up to full brightness in 7 steps from minimum to full brightness level.
- 3) Set the minimum brightness level of the device through App for individual channel to get best performance of dimming according to LED light driver settings.

3. Configuration Preparation

3.1 APP Download

The APP is compatible with Android 6.0 and iOS 11.0 or above system. iOS users could search the APP in App Store. Android users could search the APP in Google Play.

APP English name: "TATA Power EZ Home"

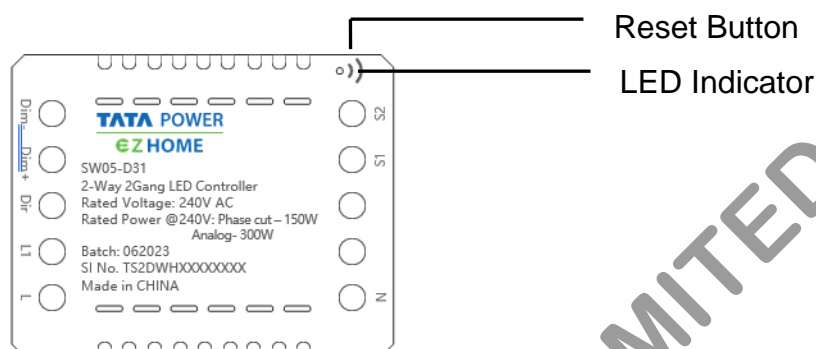


Tata Power EZ HOME

(QR code TATA Power EZ Home for both Play Store & App Store)

3.2 Factory Reset (enter Configurable status)

“Factory Reset” is an important step in APP configuration (Add new device), which make device enter configurable state.x



Two ways to reset:

The first way: **for the first APP configuration, we suggest to reset device by this way:** long press the reset button for 5 seconds until the LED indicator flashes quickly.

The second way: when the device is installed and locked inside an amounted switch box, we need to reset the device via doorbell switch input connected to S1 terminal of the device.

Switch “Off→ On→ Off→ On→ Off→ On→ Off→ On→ Off→ On” switch, that is, keep pressing the bell switch for ten times rapidly and continuously within 5 seconds (complete the 5 Off-ON cycle). If the device reset is successful, the lamp connected with switch will slow flash twice then keep on.

3.3 Wi-Fi Work Mode

Once the WiFi connection is successful, the device will work in two work modes.

Work Mode	WiFi Control	Direct Control
APP local control	Yes	Yes
APP remote control	Yes	N/A
Alexa/ Google Home	Yes	N/A

*After connection successfully, users could set work mode in APP

4. Wi-Fi Configuration (Add new Device)

4.1 Easy Mode add device

Wi-Fi networking configuration for 2 Way 2Channel LED Light Controller, SW05-D31 is convenient and rapid, mobile could be connected to the

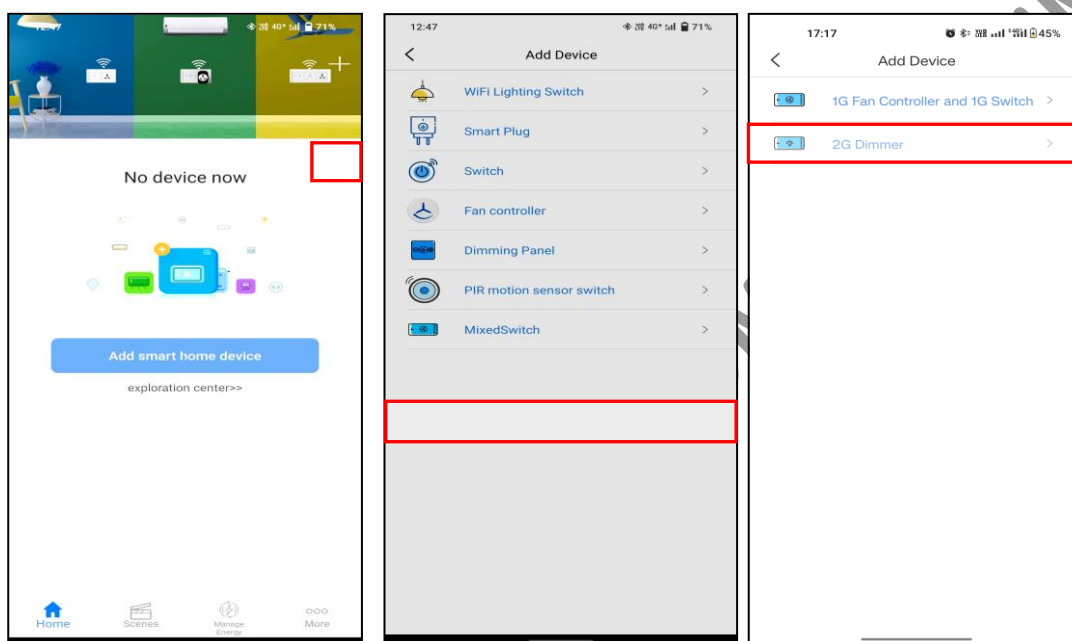
designated router quickly, the whole process is generally less than 15 seconds.

Make sure the wiring of Wi-Fi smart device is completed and is powered on.
(The Smart device only supports 2.4GHz Wi-Fi router)

Configuration process:

Step 1. Download Tata Power EZ HOME from App store/Google Play or scan QR code to download and install APP. Register yourself with your email and sign in. Connect mobile phone to 2.4GHz WiFi.

Step 2. Open “EZ HOME” APP, register and login, click “+” to add Mixed Switch. Select “Mixed Switch”, enter device secondary list, select “2G Dimmer”.



Step 3. Enter networking interface, WiFi will show the WiFi your mobile phone connected, enter WiFi password, click “Configure signal”. (The WiFi Smart Switch only supports 2.4GHz WiFi router).



Step 4. After completion of electrical wiring and device is powered on, please check if the Wi-Fi led indicator flashes quickly. If yes, please confirm

and enter "Configure Signal" directly. If not, please reset device.

Operation: long press reset button for 5 seconds until the LED indicator flashes quickly.

Confirm "Blue indicator is flashing" and start connection.

Two ways to reset WiFi lighting switch:

The first way: for the first APP configuration, reset device via device reset button: long press the reset button for 5 seconds until the led indicator flashes quickly.

The second way: when the device is installed and locked inside an amounted switch box, we need to reset the device via Doorbell switch input connected to S1 terminal of the device.

Switch "Off→ On→ Off→ On→ Off→ On→ Off→ On→ Off→ On" doorbell switch, that is, keep pressing the Bell switch input connected to S1 terminal of the device for ten times rapidly and continuously within 5 seconds (complete the 5 Off-ON cycle). If the device reset is successful, the lamp connected with switch will slow flash twice then keep on.

Step 5. Configuration is in progress".

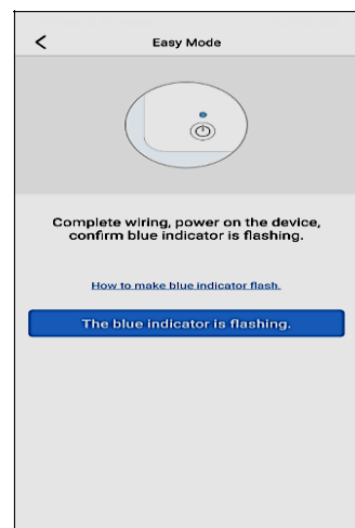
If the configuration in easy mode is failed, you will find following page, Click "Add device by AP mode" button to add device as following steps.

4.2 Add device in AP Mode

Remark: This configuration is a supplementary configuration way, if you failed configuration in Easy mode, please try AP mode to add device.

Step 1. If the configuration in Easy mode is failed, you will find following page, Click "Add device by AP Mode" button to add device.

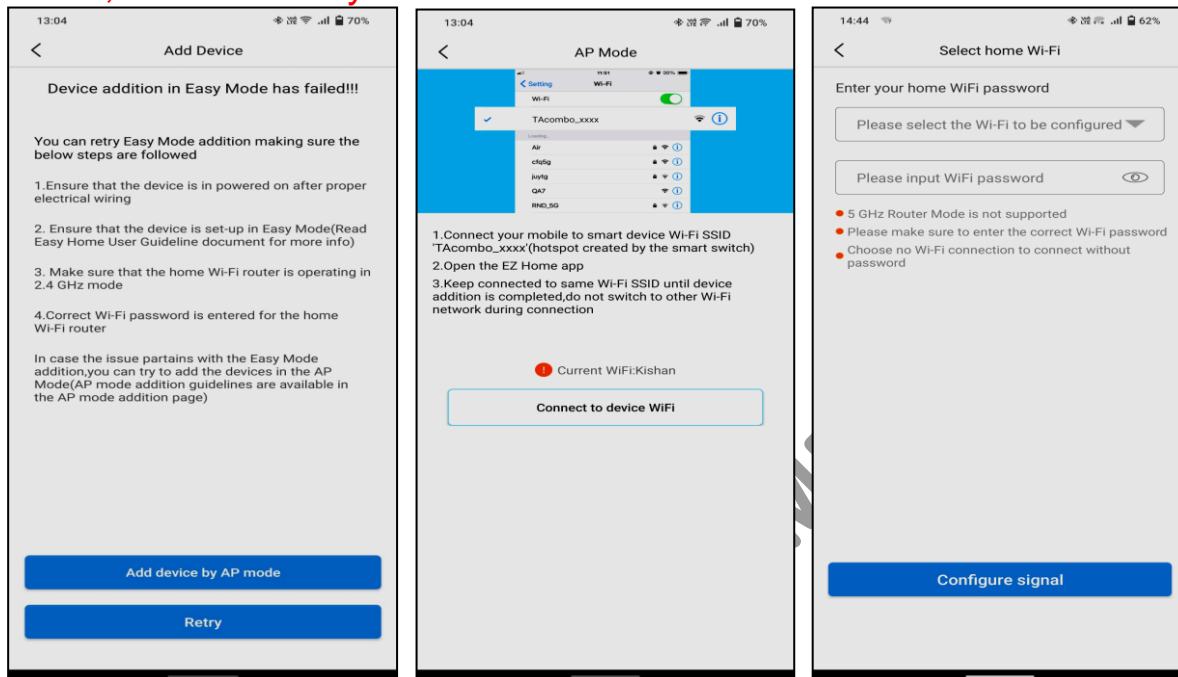
Step 2. According to page prompt, go to WLAN setting in your smart phone and select "TAcombo_XXXX" for your WIFI, no need to input password.



Step 3. Once you select the “TAcombo_XXXX”, go back to app, click ▼ to select WiFi SSID and input password, click “Next Step” to start connection. Once devices configured successfully, you will find it in device list.

Remark:

1. If there is no WiFi around smart device, you can click ▼ select "direct control", and the smart switch will work in direct control work mode, in this mode, APP can only local control for the smart switch.



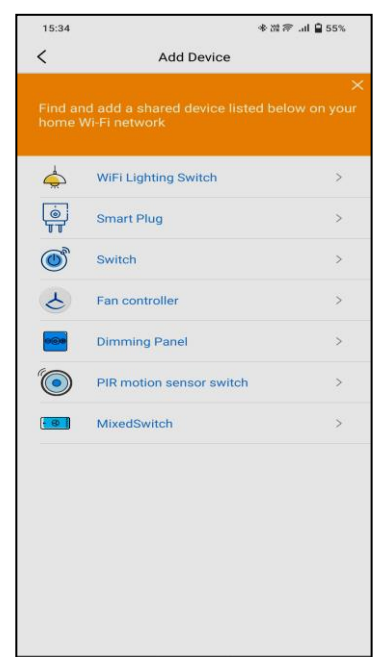
4.3 Shortcut Configuration

If the device has been configured in STA mode, administrator can share the device to users to help their configure device, the users who configure switch just need to keep mobile in WiFi 2.4GHz network.

Remark:

1. Only administrator can turn on sharing mode, administrator is the first user account who connected smart switch.

2. Sharing mode is enabled for default, if the administrator close the sharing mode in setting, the users can't find device via this configuration.

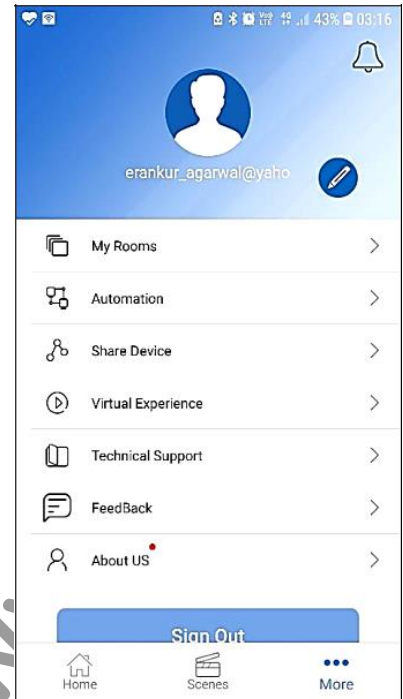


4.4 Share Configuration

If the device has been configured in STA mode, administrator can share the device to users to help their configure device, the users who configure switch just need to keep mobile in Wi-Fi 2.4GHz network.

Remark:

1. Only administrator could share device with other account.
2. The users who is shared with Smart switch will receive prompt message in APP but do not have permission to share others again.
3. The user who is shared with smart switch could local or remote control the smart switch.

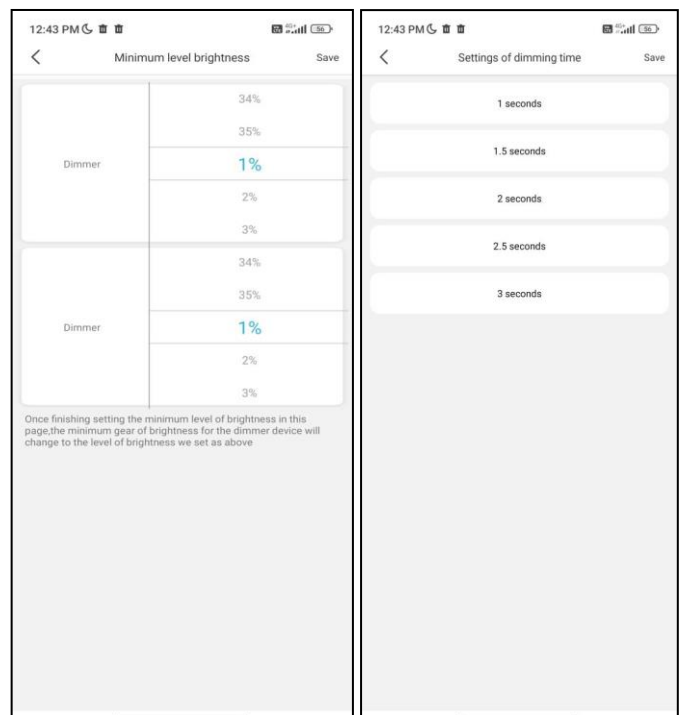


4.5 Control Interface

After connection successful, the device appears in the device list, click device to enter control page the device can be controlled by APP

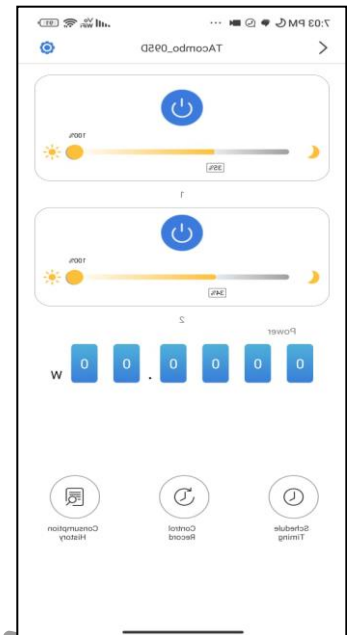
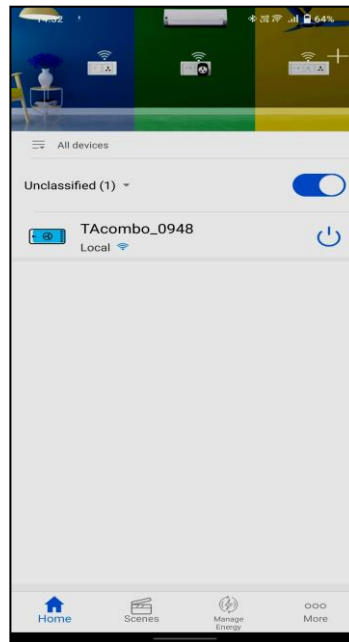
Set “minimum level brightness” at device setting page in App according to LED Light driver to avoid flickering of the light at minimum brightness.

Also set the “dimming time” for smooth manual control of the brightness level for the LED lights according to user convenience by setting the time in App for changing the brightness from one level to next level. Eg: If the settings of dimming time is kept at 2 secs, then the time taken to change brightness level from step 1 to step 7 by long press of doorbell switch would be $2 + (7 - 1) \times 2 = 14$ secs.



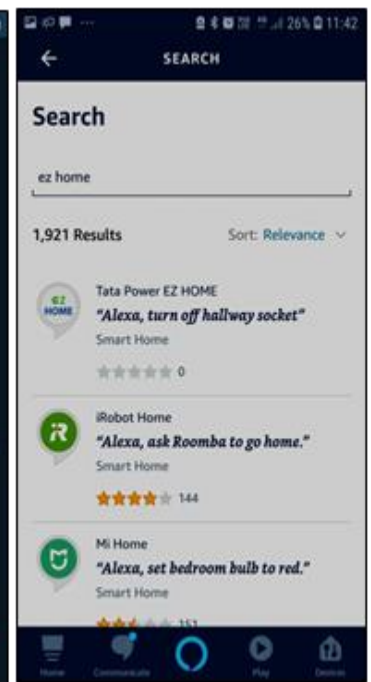
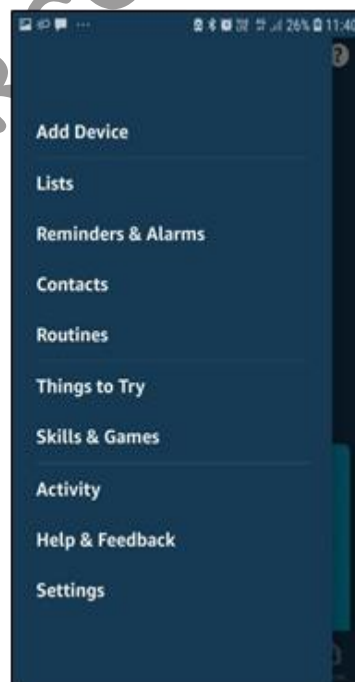
Key functions.



- Schedule Timing function
- Control Record view
- Real Time Power monitor
- Support local and remote control



4.7 Set "Alexa" App

1. Once user installs the Alexa APP, the APP will ask you to register, select language and enter your email, input verification code and create a password. If you could not see the verification code well, you can click the code button to refresh and input again.
2. Once APP configuration is successful, long press corresponding device in APP device list to set a suitable name such as "COCO" for your device, without unique names, you will be difficult to control the device via your voice with Alexa.



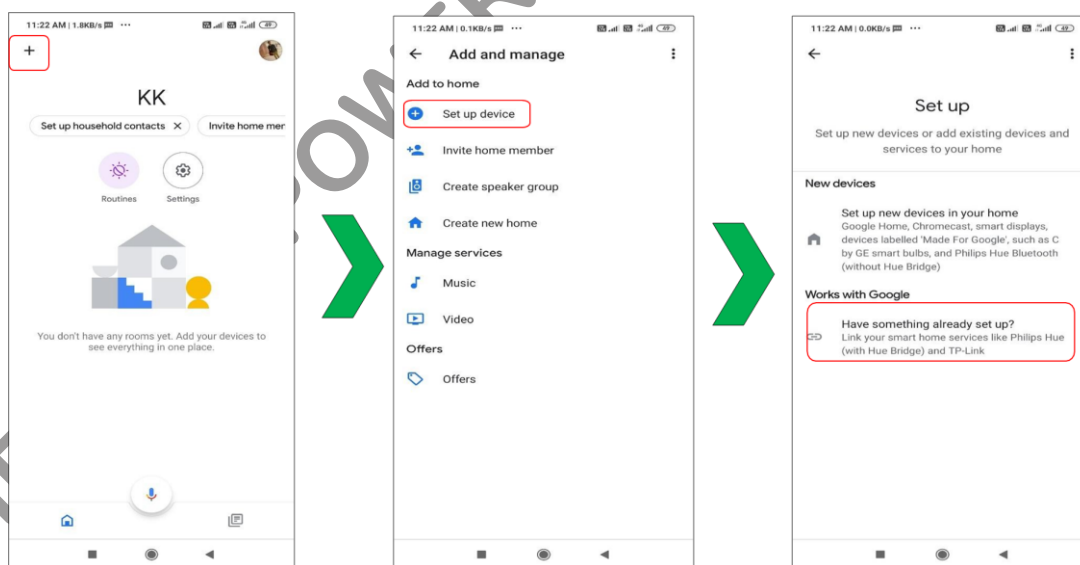
3. Open "Alexa" APP, click "More 
4. Click "Skills and Games"
5. Input "Tata Power EZ HOME" to search skills, click search
6. Click "EZ HOME 

7. Click [ENABLE TO USE](#)
8. Input your “EZ HOME” APP account and password which you have registered. (Attention: this is not the account and password of Alexa APP). Click [Authorization](#)
9. Close this window to discover smart devices you can control with Alexa
10. Click [DISCOVER DEVICES](#), then looking for devices
11. If successful, you will find the device list, then you can voice control the smart touch switch with Alexa
12. If failed, please check FAQs to find out reasons, then discover devices again. Click “Add Device”, Alexa will help you discover devices again

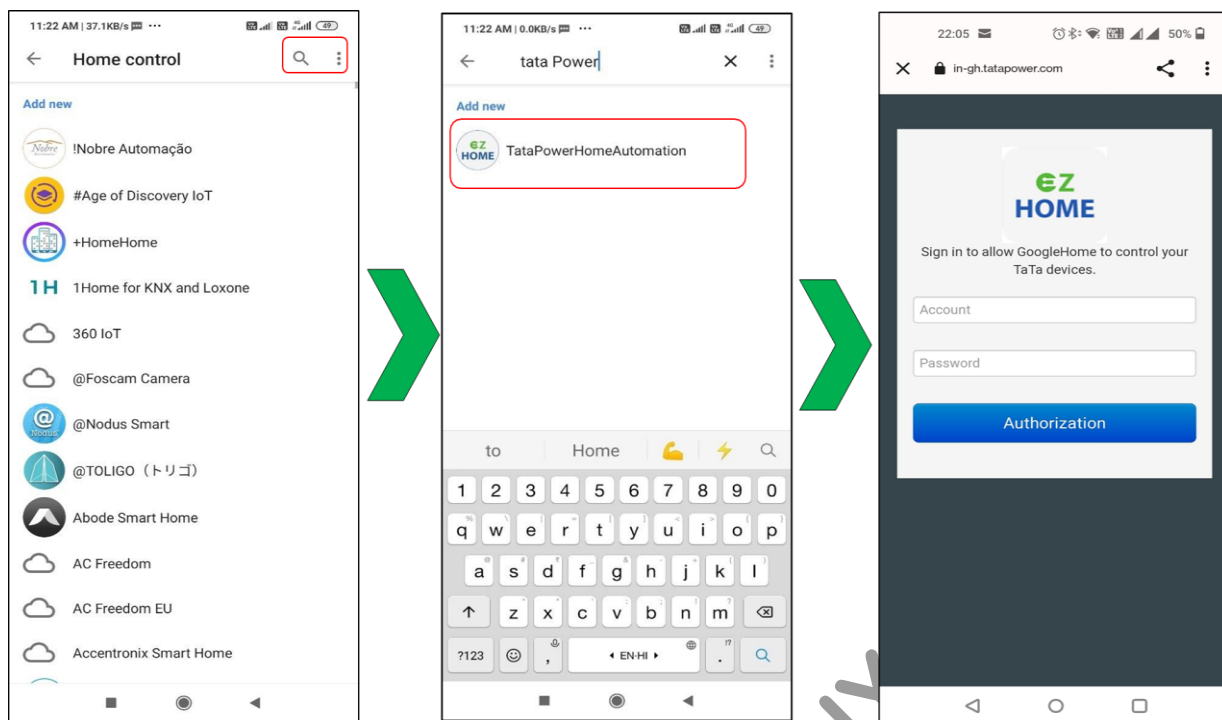
Remark: If you rename the smart switch name in APP, you need to search device again in Alexa APP, then to control the switch via voice commands.

4.8 Set “Google Home” App

1. Once user installs the Google Home APP, the APP will ask you to register & enter your email.
2. In the Home page, Select the “+” symbol
3. Select the “Set up device”
4. In the Works with Google section, select “Have something already set up”.



5. On the Search Tab, search for “TataPowerHomeAutomation”
6. Input your “Tata Power EZ HOME” APP account and password which you have registered. (Attention: this is not the account and password of Google Home APP). Click [Authorization](#)



7. Once the authorization is completed, Google Home will discover smart devices.

Remark: If you rename the smart switch name in APP, you need to search device again in Google Home to control the switch via voice commands.

5. Disclaimer

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