Aeotec
BY AEON LABS

Dual In-Wall Switch

View the expanded manual:
http://aeotec.com/support

IMPORTANT!

This product has been fully tested and certified to work with Z-Wave by the Z-Wave Alliance. It is crafted using Z-Wave Plus, the latest device version of Z-Wave. As such, if the product does not work with your gateway, please be sure to check with your gateway manufacturer that they have integrated this device with their gateway for full operation.

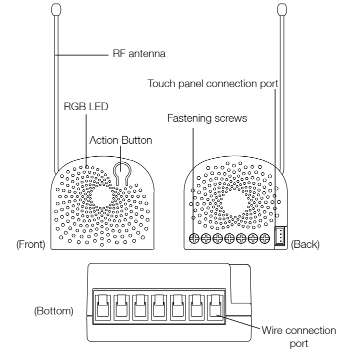
1 Aeotec by Aeon Labs In-Wall Switch.

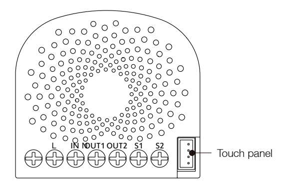
Aeotec In-Wall Switch is a low-cost Z-Wave Switch specifically used to enable Z-Wave command and control (on/off) of any In-Wall Switches. It can report immediate wattage consumption or kWh energy usage over a period of time. In the event of power failure, non-volatile memory retains all programmed information relating to the unit's operating status.

It can connect to 2 external manual switches to control the load ON/OFF independently. Its surface has a pin socket, which can be used for connecting to the touch panel, so you can also use the touch panel to control the In-Wall Switch.

The In-Wall Switch is also a security Z-Wave device and supports Over The Air (OTA) feature for the products firmware upgrade.

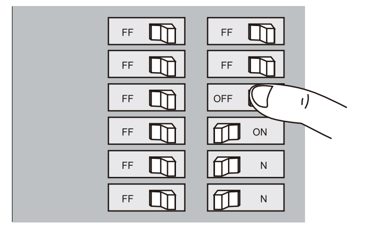
② Familiarize yourself with your In-Wall Switch.



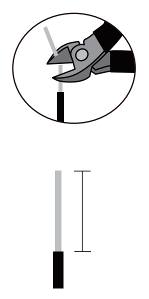


Notes for the wire connection ports:

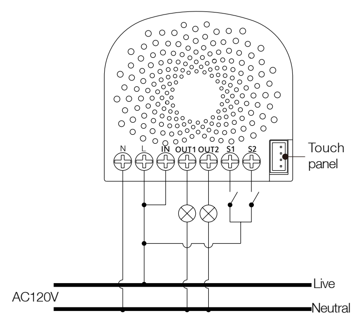
N – Power input for neutral
L – Power input for live
IN – Input for load power supply
OUT1 – Output for load 1
OUT2 – Output for load 2
S1 – External switch control for load 1
S2 – External switch control for load 2



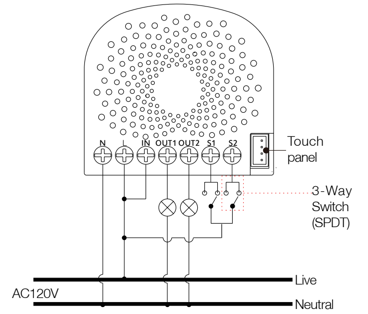
2. Preparing connection wires
14 AWG power wires for Input/ Output.



Wiring diagram of AC120V power input.



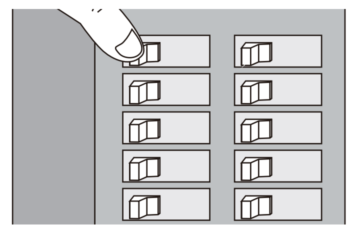
Wiring diagram of 3-Way connection.



3. Install In-Wall Switch to the gang box.
    a. Live/Hot wire connection: Connect the Live/Hot wire to the “L” terminal on the In-Wall Switch.
    b. Neutral wire connection: Connect the Neutral wire to the “N” terminal on the In-Wall Switch.
    c. Load wire connection: Connect the 2 Load wires to the “OUT1” and “OUT2” on the In-Wall Switch.
    d. External/manual Switch connection: Connect 2 18AWG wires to the “S1” and “S2” on the In-Wall Switch.
    e. External/manual Switch connection: Connect 2 18AWG wires form the In-Wall Switch to the 2 terminals on the External/manual Switch.

4. Mounting the gang box.
    a. Position all wires to provide room for the device. Place the In-Wall Switch inside the gang box towards the back of the box.
    b. Position the antenna towards the back of the box, away from all other wiring.
    c. Reinstall the In-Wall Switch to the gang box.
    d. Reinstall the cover onto the gang box.

5. Restore Power.
Restore power at the circuit breaker or fuse.



③ Quick start.

Adding your In-Wall Switch to a Z-Wave network.

After your In-Wall Switch is installed and powered on, you are now able to manually control the In-Wall Switch to turn it On/Off directly via pressing your In-Wall Switch's Action Button, it is time to add your In-Wall Switch to the Z-Wave network. To set your Z-Wave gateway/controller into pairing mode, please refer to the respective section within your controller instruction manual.

1. Set your Z-Wave controller into pairing mode.
2. Press the Action Button on the In-Wall Switch, the green LED (non-secure indication) will blink to indicate the In-Wall Switch is entering into pairing mode.
3. If the In-Wall Switch has been successfully added to your Z-Wave network, its RGB LED will be solid. If the pairing was unsuccessful, the red LED will be on for 2 seconds and then remain a colourful gradient, repeat the instructions above from step 1.

With your In-Wall Switch now working as a part of your smart home, you'll be able to configure it from your home control software/phone application. Please refer to your software's user guide for further instructions on configuring In-Wall Switch to your needs.

④ Removing In-Wall Switch from a Z-Wave network.

Your In-Wall Switch can be removed from your Z-Wave network at any time. You'll need to use your Z-Wave network's main controller. To set your Z-Wave controller/gateway into removal mode, please refer to the respective section within your controller instruction manual.

1. Set your Z-Wave controller into removal mode.
2. Press the Action Button on the In-Wall Switch.
3. If the In-Wall Switch has been successfully removed from your Z-Wave network, its RGB LED will remain colourful gradient. If the removal was unsuccessful, the RGB LED will still be solid (following the state of the output load), repeat the instructions above from step 1.

⑤ Advanced functions.

Changing mode on the External Switch/Button Control.

The In-Wall Switch can be controlled via 2-state (flip/flop) external/manual switch, momentary push button or the 3-way switch. To automatically detect and set the mode to the appropriate type of manual switch wired into In-Wall Switch, toggle the button on the manual switch once and wait 2 seconds for the In-Wall Switch to detect the type of manual switch.

You can also set the external switch mode through Configuration Command Class.
Parameter 120 [1 byte dec] is the parameter that will set one of the 3 different modes. If you set this configuration to:

(0) 2-state switch mode
(1) Momentary push button Mode
(2) 3-way switch mode

Monitoring Energy Consumption.

The Aeotec In-Wall Switch can report wattage energy usage or kWh energy usage to a Z-Wave control point when requested. If this function is supported by the control points, the energy consumption will be displayed in the user interface

of the control points. (The specific Z-Wave commands supporting energy monitoring are the Meter Command Class. Automatic reports are sent to association group 1, which is setup via the Association Command Class.) Please consult the operation manual for these control points for specific instructions on monitoring the In-Wall Switch.

Security or Non-security feature of your In-Wall Switch in Z-Wave network.

Including In-Wall Switch as a non-secure device:
If you want your In-Wall Switch as a non-secure device in your Z-Wave network, press the Action Button once on In-Wall Switch when you pair it to your gateway. If inclusion is successful, the green LED will be on for 2 seconds, and then return to a solid indication (following the state of the Hub). If inclusion is unsuccessful, the red LED will be on for 2 seconds and then return to a colourful gradient.

Including In-Wall Switch as a secure device:
In order to take full advantage of the Smart Film Hub, you will want your In-Wall Switch as a security device that uses encrypted messages to communicate in your Z-wave network. A security enabled controller/gateway (or Z-Wave Plus controller) is required.

1. Set your Z-Wave Plus controller into pairing mode.
2. Press the Action Button 2 times within 1 second on the In-Wall Switch, the blue LED (secure indication) will blink to indicate the In-Wall Switch is entering into secure pairing mode.
3. If the In-Wall Switch has been successfully added to your Z-Wave network, its RGB LED will be solid. If the pairing was unsuccessful, the red LED will be on for 2 seconds and then remain a colourful gradient, repeat the instructions above from step 1.

Reset your In-Wall Switch.

If at some stage, your primary controller is missing or inoperable, you may wish to reset all of your In-Wall Switch's settings to their factory defaults. To do this, press and hold the Action Button for 20 seconds and then release it. Your In-Wall Switch will now be reset to its original settings, and the green LED will be solid for 2 seconds and then remain the colourful

6 Technical specifications.

Model:FT132-A,ZW132-A,FT140-A,ZW140-A
Power input: 120VAC， 60Hz.
Rated output: 6.5A /way
Total current: Max 10A.
Max standby power: 0.8W.
Operating temperature: 0℃ to 40℃/32℉ to 104℉.

Relative humidity: 8% to 80%.
Operating distance: Up to 492 feet/150 meters outdoors.

FCC NOTICE (for USA)
This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions:
This device may not cause harmful interference,
and This device must accept any interference received,
including interference that may cause undesired operation.
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:

IC Caution:
IC Note : Cet appareil est conforme à la Partie 15 des règlements de la FCC et aux normes RSS de l’Industrie du Canada. Son fonctionnement est soumis aux deux conditions suivantes : (1) cetappareil ne doit pas causer des interférences nuisibles, et (2) cet appareil doit accepter touteinterférence reçue, y compris les interférences qui peuvent provoquer un fonctionnementindésirable.

Le fabricant n'est pas responsable des toutes interférences radio ou télévision causées par des modifications non autorisées apportées à cet appareil. De telles modifications peuvent empêcher l’utilisateur d’utiliser l'appareil.

To maintain compliance with FCC’s RF exposure guidelines, this equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

le dispositif de a été évalués à répondre général rf exposition exigence.pour maintenir la conformité avec les directives d'exposition aux rf, ce matériel doit être installé et exploité à une distance minimale de 20 cm entre le radiateur et votre corps.

Certifications (regional):

Z-Wave and Z-Wave Plus are registered trademarks of Sigma Designs and its subsidiaries in the United States and other countries
FCC ID: XBAFT132

Intertek
4005555
CONFORMS TO UL STD 60730-1
CERTIFIED TO CSA STD E60730-1

Manufacturer ：Fantem Technologies (Shenzhen) Co.,Ltd

FCC Part 15.19 Warning 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.

FCC Part 15.21 Warning Statement
NOTE: THE GRANTEE IS NOT RESPONSIBLE FOR ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

RF warning statement:
The device has been evaluated to meet general RF exposure requirement.
To maintain compliance with FCC's RF exposure guidelines, this equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

FCC Part 15.05 Warning Statement
Note: 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.