



Private  
Locally Managed  
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Privé  
Géré localement  
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virage

Home Automation  
Systems

Systèmes  
domotiques



VirageSwitch

Installation and Setup  
Manual

Model KS-602H FW v3.2

laboratories inc.



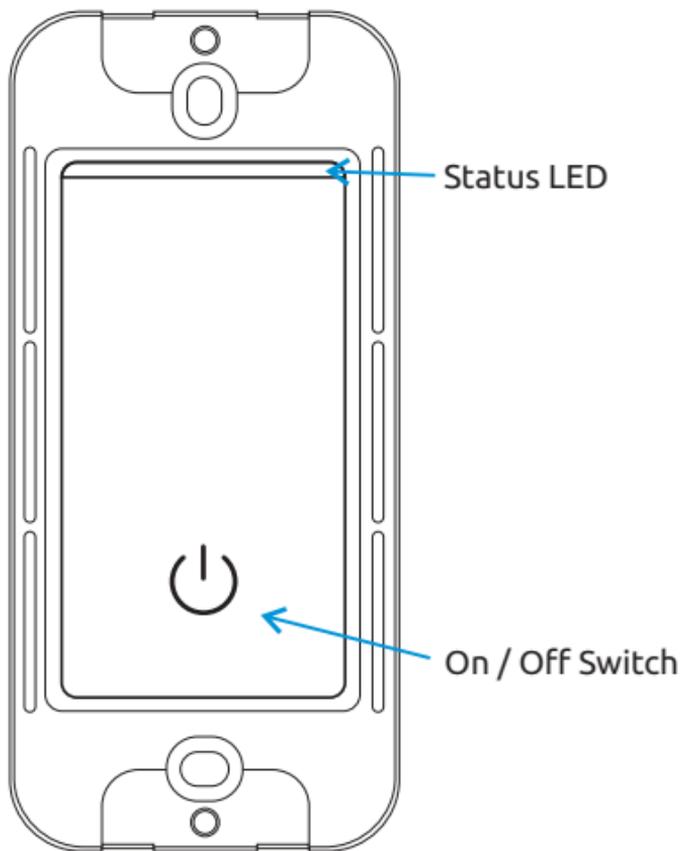
## WARNING - ATTENTION

Risk of electric shock or fire if installed improperly. If you are unsure how to safely install this device please consult a licensed electrician.

Before you install, some things to check:

1. This device requires a neutral (white) wire to function.
2. This device replaces a single-pole switch only. It cannot be used with standard 3-way switch wiring. To create a virtual 3-way switch, please consult our online FAQ.
3. The total wattage controlled by this device cannot exceed 1650 watts.
4. A 2.4 GHz 802.11b/g wireless network is required to connect the device. It is **not** compatible with 5 GHz 802.11 a wifi systems.
5. As with all wireless and wired networks, please ensure your wifi connection uses at least WPA2 PSK level wireless security, a strong wifi password, and ensure there is a firewall on your internet connection.

# Get to know your new switch

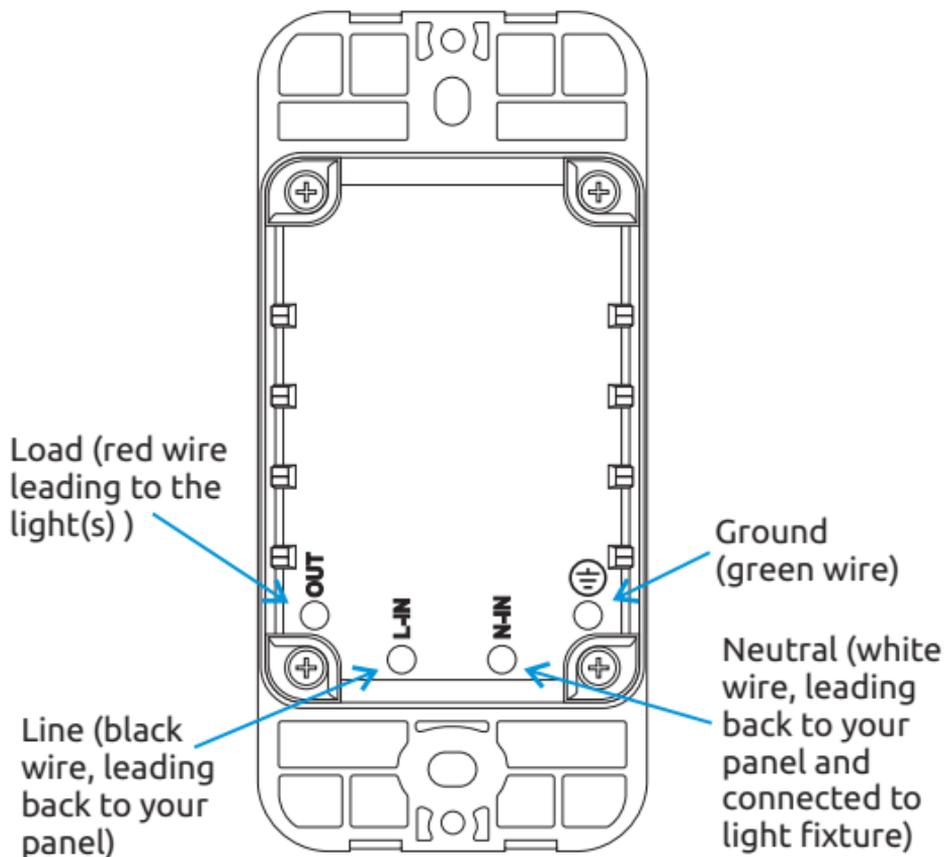


| LED    | State          | Meaning                          |
|--------|----------------|----------------------------------|
| Status | Flashing Green | Not connected to WiFi            |
|        | Solid Green    | Connected to WiFi / Light is off |
|        | Solid Red      | Light is on                      |

# Wiring

(note that wires are attached to the device but have been omitted for clarity).

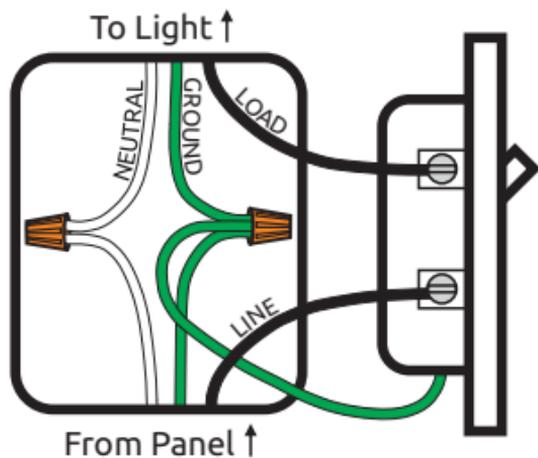
Wire colors may vary with the age of your home and who did the wiring. Please verify the function of each wire before connecting the device and energizing the circuit.



# Installation

It is recommended that installation be completed by a licensed electrician.

1. Locate and turn off the circuit breaker for the switch you want to replace.
2. Check that the wires in the device box where you are installing the switch are de-energized. Note: some wires may be connected to different circuit breakers.
3. Identify the wires in the device box leading to the switch you want to replace (see diagram).

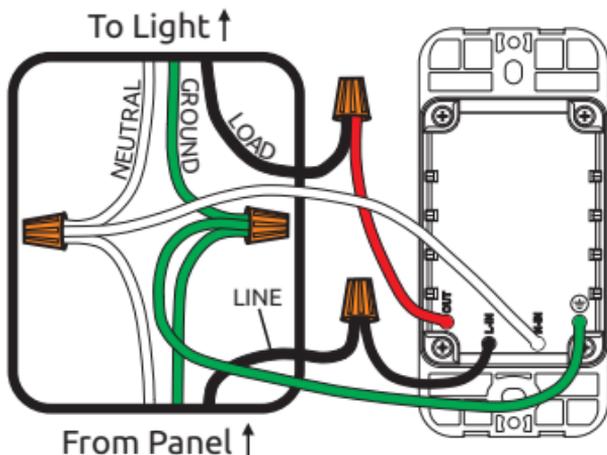


Typical wiring - note that not all wiring will look like this. Ground wires in are often bare copper, but are shown as green here for clarity.

# Installation Continued

It is recommended that installation be completed by a licensed electrician.

4. Disconnect the wires from the existing switch, making sure to remember which wire is which (labeling the wires with tape before disconnecting them can be useful).
5. Using the existing and/or supplied wire nuts, connect the wires of your new switch as appropriate to your wiring configuration (see diagram).



Typical wiring - note that not all wiring will look like this.

6. Bend the wires into the device box, taking care to not loosen the wire nuts. Push the switch into the box and attach it using the screws provided.
7. Turn the breaker back on and check that the Status LED on the switch is flashing green.

# Installation Continued

8. On your smart phone or computer, open the WiFi connection list. You should see a connection called VirageSwitch\_XXXXXXXX (the Xs are the unique ID of your switch). Connect to this access point. If you receive a warning that the connection has no internet access, please ignore it as this is normal.
9. Once you have connected to the VirageSwitch access point, your web browser should automatically open the device configuration page. If this does not happen, please navigate to <http://192.168.4.1> (**not** [https://](https://192.168.4.1)). You will be prompted to enter a username and password. The default is:

username: admin

password: admin

It is recommended you change the password during the configuration process.

10. You should now see the Network Settings page for your switch. Click **Scan for wifi networks** to see available WiFi connections and select the WiFi connection you normally use. Enter the corresponding WiFi password in the space provided (check the box to use plain text entry).
11. Change the Web Admin password (check the box to enable plain text entry).

# Installation Continued

12. If you will be using a hub to control your switch, ensure that the Hub Address is correct and that the Hub Support and mDNS checkboxes are enabled.
13. If you are configuring multiple switches at the same time, click **Identify Device**, and the switch will turn on and off five times allowing you to easily locate it.
14. Give your switch a unique Device Name.
15. Click **Save**. The switch will restart and connect to your WiFi network. The WiFi Connection will be lit solid green once connected.
16. The built-in web page of your switch should now be accessible at: `http://device_name.local` (spaces in the Device Name are replaced with underscores ( \_ ) and capital letters changed to lower case).
17. Configure your home automation hub to connect to the switch using MQTT (your hub provider should offer instructions, or refer to the Virage website).
18. You can modify the MQTT settings on your switch from the Configuration menu on the web interface. The default MQTT username and password are:

username: mqttuser  
password: mqttpass

# Using your VirageSwitch

The switch can be controlled using the physical buttons on the switch or remotely using either the built-in web interface or one of several home automation hubs.

## Direct Control

Press the button on the switch to turn the light(s) on and off.

## Remote Control

Using a web browser, navigate to the URL for your switch (see Step 16). Click **Toggle** to turn the light(s) on or off.

If you are using a home automation hub, please follow the instructions from the hub provider for information on how to control your switch from the hub. You may also refer to the Virage website for information on setting up Virage products with selected home automation hubs.

# Troubleshooting

| Issue  | Solution  |
|--|---|
| No white (neutral) wire  | Ask an electrician if a neutral wire can be installed, otherwise the device cannot be used in that location.  |
| No ground wire   | It is not recommended to operate any electrical device without proper grounding, however a ground wire is not necessary for operation.  |
| Status LED does not flash after installation or light does not work                          | Ensure there is power getting to the device. Double check that the correct breaker is turned on and that the wiring was connected correctly.  |
| Status LED continues to flash after configuration  | Reconnect to the device access point (Step 8), repeat steps 9 through 15 and ensure the WiFi connection (SSID) and password are correct. Note that if the Device Name has been configured, the name of the WiFi connection will change to device_name.  |
| Device is connected to WiFi, but <code>http://device_name.local</code> URL is not accessible | Check that multicast, mDNS or similar options are enabled on your network. Not all routers and/or access points support LAN name resolution. Look in the DHCP table on your router to identify the IP address assigned to your device and connect to it at <code>http://ip_address</code> (e.g. <code>http://192.168.1.123</code> ) if name resolution fails. |
| Lost web admin password  | Perform a factory reset: Push and hold the switch button for approximately 30 seconds, release it, then press and hold it again for 30 seconds. You should hear the switch click when it resets. Repeat steps 8 - 15.   |
| Lost Network Name, or to erase configuration and start over                                  | Perform a factory reset as detailed above.  |

# Specifications

Model: KS-602H FW 3.2

Rated Voltage: 110 - 125V AC, 50-60 Hz

Rated Power Capacity: 1650W

Wireless Compatibility: IEEE 802.11 b/g/n

Wireless Frequency: 2.4 Ghz

FCC ID: 2AHRE-KS602

Certifications: ETL 5010526 (conforms to UL 60730-1,  
CSA E60730-1)

Country of Origin: Hardware manufactured in China,  
Firmware designed in Canada based on  
open-source code.

Firmware License: The firmware on this product is licensed  
under GPL v3.0. See device Info page for  
full details. The source code may be  
downloaded free of charge from:  
<https://www.viragelabs.com/source-code>

Note: To reduce the risk of overheating and/or possible  
damage to this or other equipment, do not install  
this device to control a receptacle, a motor or  
motor-operated appliance, or a transformer-supplied  
appliance.

# FCC Compliance 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.

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

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 to 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.

To maintain compliance with the FCC RF exposure guidelines, this device should be installed and operated with a minimum separation distance of 20 cm (8 inches) between the equipment and a person's body.