Home Automation Systems

Systèmes domotiques

VirageBridge

Installation and Setup Manual

Model VB-001 FW v3.2
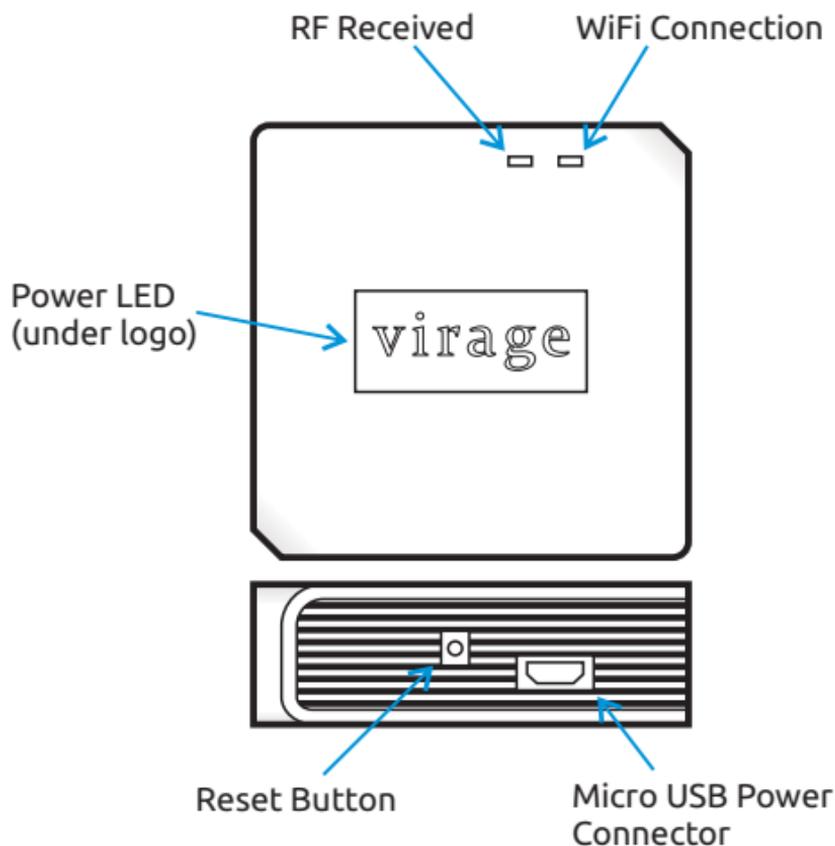
virage laboratories inc.

> ## ⚠ 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 receives 433 MHz radio signals. As with
   all such receivers, performance may be limited by:
     - Proximity to metal objects, including ductwork,
       metal framing, or metal posts and beams in walls
     - Other sources of radio frequency emissions including
       televisions, microwave ovens, computer equipment
       or other devices
2. Depending on the radio transparency of the building,
   two or more VirageBridges may be required to ensure
   consistent reception of signals.
3. The VirageBridge requires a 5V 1A power supply.
   Ensure the power supply you are using can consistently
   meet these specifications (if you are not using a Virage
   power supply).

Get to know your new bridge

RF Received   WiFi Connection

Power LED
(under logo)

virage

Reset Button

Micro USB Power
Connector

LED	State	Meaning
Power	Green	Power is On
RF Received	Red	RF Signal Received
WiFi Connection	Flashing Blue	No WiFi Connection
	Solid Blue	Connecting to WiFi
	Off	Connected to WiFi (or no power)

Installation

1. Identify a suitable location to install your VirageBridge within the space you are covering, at an approximately equal distance from installed sensors.

2. The installation location should have as few obstacles as possible (e.g. walls) between it and any installed sensors. Remember that there may be metal ducts or wiring in the walls that could interfere with the signal.

3. Where possible do not install your VirageBridge near appliances or other large electrical/electronic devices to avoid potential radio interference.

4. Depending on the physical characteristics of your space, it may be necessary to use multiple VirageBridges to ensure reliable and consistent coverage.

5. The VirageBridge uses standard USB power (5V 1A). A power supply and cord are included, however you may also use powered USB electrical outlets, USB hubs, computers or other devices provided they can supply the required current and do not create radio interference.

6. Once you have identified a suitable location for your VirageBridge, plug the power supply into a 120V electrical outlet and connect the VirageBridge using the provided cable. You should see the green Power LED light, and the blue WiFi LED begin flashing on the VirageBridge.

Installation Continued

7. On your smart phone or computer, open the WiFi connection list. You should see a connection called VirageBridge_XXXXXXXX (the Xs are the unique ID of your device). 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 VirageBridge 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://).
   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 Bridge. 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 VirageBridge, ensure that the Hub Address is correct and that the Hub Support and mDNS checkboxes are enabled.

13. If you are using a Domoticz hub, set up the VirageBridge in Domoticz, obtain the Idx, and enter it in the space provided in the VirageBridge configuration page.

14. Give your VirageBridge a unique Device Name.

15. Click *Save*. The VirageBridge will restart and connect to your WiFi network. The WiFi Connection LED on the VirageBridge will light solid blue and then go off when it is ready to use.

16. The built-in web page of your VirageBridge 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. If using a hub other than Domoticz, set it up to connect to the VirageBridge using MQTT (your hub provider should offer instructions, or refer to the Virage website).

18. You can modify the MQTT settings on your VirageBridge from the Configuration menu on the web interface. The default MQTT username and password are:

    username: mqttuser
    password: mqttpass

Using your VirageBridge

The VirageBridge must be used along with a home automation hub (such as Home Assistant, Domoticz or OpenHAB), as well as 433.92 MHz radio-frequency devices such as door contacts or motion sensors.

The VirageBridge actively listens for 433.92 MHz radio frequency signals sent from the devices mentioned above. These signals are then transformed into packets of data and sent to your home automation hub for processing.

There is nothing to control on the VirageBridge itself. Once it is set up to connect to your home automation hub, it simply requires a consistent power supply to do it's job.

For instructions on how to set up radio-frequency devices in your home automation hub, follow the instructions provided by the makers of your hub or refer to the Virage website.

Troubleshooting

Issue	Solution
No power	Ensure the power supply you are using is functional and able to provide at least 1A of current at 5V. Note that USB outlets on televisions, routers and other devices are not intended to act as power sources and may not provide adequate current.
WiFi Connection LED continues to flash after configuration	Reconnect to the device access point (Step 7), repeat steps 8 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 http://device_name.local 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. You can look in the DHCP table on your router to identify the IP address assigned to your device and connect to it at http://ip_address (e.g. http://192.168.1.123) if name resolution fails.
Lost web admin password	Perform a factory reset: Push and hold the **reset** button for approximately 30 seconds, release it, then press and hold it again for 30 seconds. You should see the blue WiFi connection light flash briefly when the rest is complete. Repeat steps 7 - 15.
Lost Network Name, or to erase configuration and start over	Perform a factory reset as detailed above.

Specifications

Model: VB-001 FW 3.2
Rated Power: 5V DC 1A
Wireless Compatibility: IEEE 802.11 b/g/n
Wireless Frequency: 2.4 Ghz
FCC ID: 2APNSRFBRIDGE
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

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.