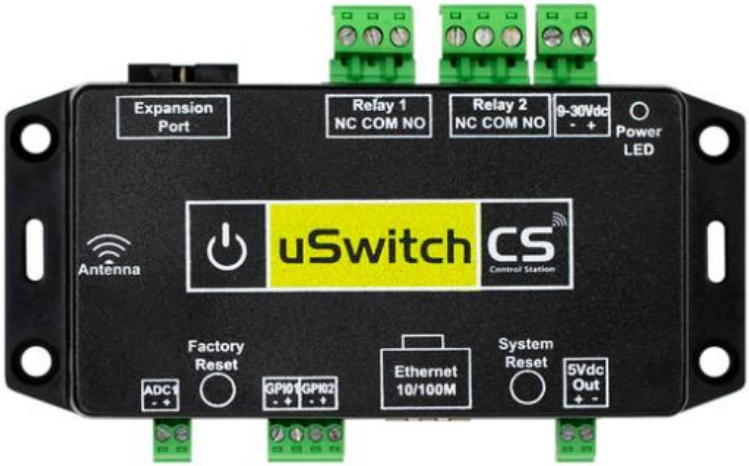
Building Performance Equipment, Inc.®

Sustainable, Reliable and Energy Efficient Ventilation Systems

uSwitch CS Controller

With WiFI/Ethernet Web Controlled Relays and I/O Controller



What it is: Expandable 2 Channel WiFi IP Relay and I/O controller to manage, sense, automatically reboot, and control any device, anywhere, anytime over LAN/WAN from any iPhone, Android, PC, or MAC.

How it works: uSwitch CS is accessed over a secure Wi-Fi network or from any wired or wireless network supporting the secure HTTPS protocol, over VPNs, or home, industrial, and business networks. It can run stand-alone, over the local network and through the cloud. It may also be accessed via custom third-party applications through its API. The possibilities are infinite.

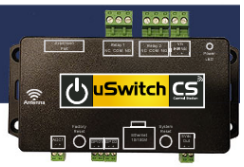
Simple to use: uSwitch CS is technically advanced, yet simple to use, with no programming required. When coupled with the A-Plug adaptor, even a 12-year-old can easily install it!

Manufactured by: uHave Control

Features and Benefits

- A-Plug Compatible
- Built-in Web Server/ Wi-Fi Access Point
- Built-in Ethernet Port
- Relay and I/O Expansion Available
- Temperature/Humidity/Pressure Monitoring
- No Code or Programming Required
- Text and Email Alerts
- Built-in calendar for scheduling multiple events
- Logging
- Full Encryption including TLS/HTTPS
- Peer-to-Peer (P2P) Communications
- Voltage Monitoring
- Relay/IO/Sensor Expansion Port
- Up to 110/220V 5 Amp relay contacts
- No programming required
- Easy to install
- Full API for seamless integration
- HTTP/HTTPS/TCPIP/XML/MQTT/MODBUS

uSwitch CS Quickstart Guide



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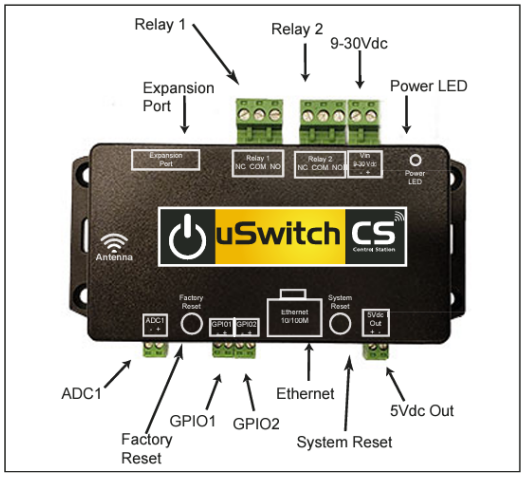

uSwitch CS can be connected to a DC power source in the range of 9-30Vdc. Connect an appropriate DC power supply to the + and - terminals in Figure 1 (regulated power supply recommended). The power supply should be rated to meet the operating current of the uSwitchCS™ (see appendix C for power specifications) along with any expansion modules that receive power from the uSwitch CS. As shown in the photo, the positive terminal is closest to the outside edge; the negative terminal closest to the relay 2 connector.

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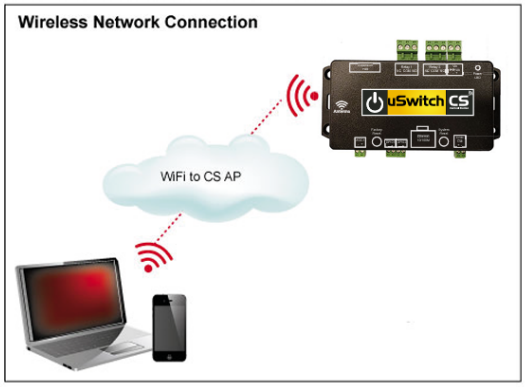


1. From the factory, uSwitch CS is configured to access point station (AP station) with SSID “uStationAP”.

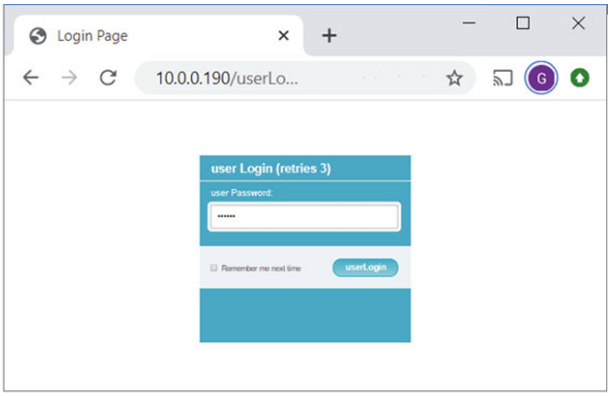
2. To connect to the uSwitch CS for the first time from your device, connect its Wi-Fi to the uSwitch SSID “uStationAP”.

3. If the SSID is unavailable, press the system reset button and try again. Holding the firmware reset button for 5+ seconds will always restore to AP Station Mode and restore factory network and wireless settings. When all else fails, this allows you to get back to a known SSID / Passphrase and reestablish a connection.

3

4. Once your device’s Wi-Fi adaptor is connected directly to the uSwitch CS APStation SSID. Open your browser of choice and enter the default IP address of the uSwitch CS control page, http://192.168.4.1.

5. The ‘user Login’ screen below should be displayed. The user name is admin and the password is admin.



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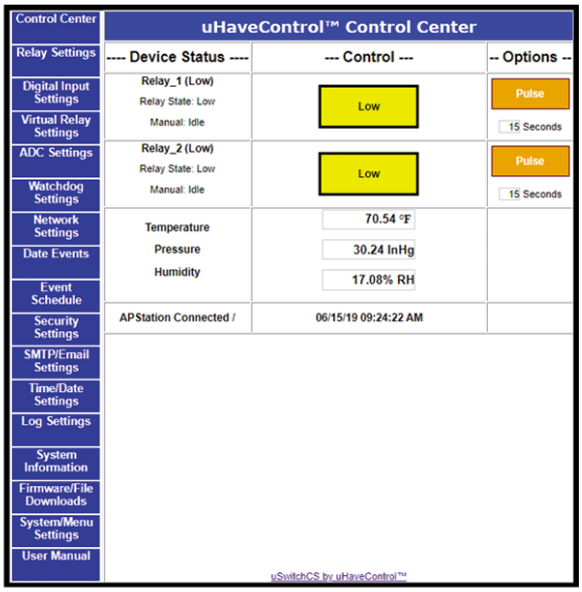
6. Wait for the Control Center to load and start controlling your relays.



Model uSwitch CS
Part #IPSW1CS

Power Requirements:

Voltage: 9VDC – 30VDC variable input

Standby Current (Relays OFF) - 58mA One Relay on - 92mA Both Relays on - 126mA

Relay Ratings:

Rated Carrying Current: 5A @ 125VAC, 5A @ 250VAC, 10A @ 24VDC

Max Current: 5A

Max Voltage: 240VAC, 110 VDC

Relay Performance

Relay Control Options: ON/OFF, Pulsed, Automatic, Momentary Contact Resistance <50m ohms (initial value)

Contact Material: Ag alloy

Max Switching Voltage: 240VAC, 110VDC Max Switching Current 20A

Mechanical life (rated load) 10,000,000 ops. Electrical life (rated load) 100,000 ops.

AC

Relay Capacity: 7.5 Amp Max at 105-125 VAC, 5 Amp Max at 210-240 VAC

Networking:

Network: 10/100 Base-T, IPv4

Network Setup: static IP address assignment, DHCP, HTTP, HTTPS, TLS port selectable

Network Connector: 8-pin RJ-45 socket

Connectors:

Power/Input: 2-position, removable terminal strip, 3.81mm terminal spacing

Relays: 3-position (Normally Closed, Normally Open, Common) removable terminal, 3.81mm terminal spacing Ethernet: 8-pin RJ-45 socket

ADC Input - 2-position, removable terminal strip, 3.81mm terminal spacin

ANALOG INPUT

ADC+ Analog Input (0 to 30VDC)

ADC- Analog Input (Ground)

GPIO spec I/O

GPIO Input 5-position, removable terminal strip, 3.81mm terminal spacing

GPIO1+ Digital Input/Output 1 (In: 0 to 5VDC; Out: 0 to 3.3VDC)

GPIO1- Digital Input/Output 1 (Ground)

GPIO2+ Digital Input/Output 2 (In: 0 to 5VDC; Out: 0 to 3.3VDC)

GPIO2- Digital Input/Output 2 (Ground)

5Vdc Out+ 5VDC Power Supply Output (Current limited to 500mA)

5Vdc Out- 5VDC Power Supply Output Ground)

LED Indicators: (on Ethernet jack)

-Network linked

-Network activity

Physical:

MTBF 360,000 hours

Temperature

Operating: 0 – 60 degrees C (-30C, +80C)

Storage Temp -40 to +70C