

BV107 Quick Start

Thank you for purchasing this Product. The BV107 comes in several formats from an empty PCB to a purpose made relay driver.

Connecting and Getting Started

1) Power: connect a 5V power supply.

LED2 will short flash to indicate that it needs to be configured.

2) Connect a PC or Tablet to the device which by default is an access point, look for a wifi name of ESP_???



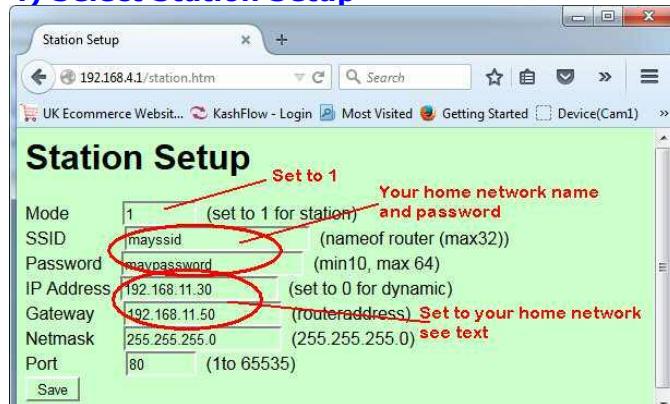
(Fig 1 Connect to ESP device)

3) Open a browser and type 192.168.4.1 and you will get the configuration screen



(Fig 2 Configuration index)

4) Select Station Setup



(Fig 3 Station setup)

IP Address: You can enter 0 for this and the gateway and mask. The home wifi will then decide on an IP address. It is better however if you know your network (ipconfig) to enter a fixed address. This will help the battery life (see general notes).

Gateway: This is the address of your wifi router.

Mask: is always 255.255.255.0

Press **Save** and then **Save Changes** on the Yellow index screen. After a few seconds the LED on the device will stop flashing.

5) Mode. Make sure that Mode is set to 1

6) Save. When all settings are correct press save

7) Save Changes. Press the Save Changes on

the yellow screen and after a few seconds the LED will stop flashing. The device is now configured.

Re-Configuration

Partial: If you know the IP address (one you choose at set up) Then press and let go of PB1, for more than 2 seconds but less than 6 seconds. The LED will flash in configuration mode and you can use the IP address in the browser to make any changes without having to re-connect to the ESP_?? access point. This can be cancelled by recycling the power.

Full: This will reset back to factory conditions, Press PB1 and hold down for greater than 6 seconds until the LED illuminates continuously. When PB1 is let go it will be in the configuration mode as at the beginning of this text.

Serial: It is also possible to configure the device via a USB to Serial connector using +++ commands. The relevant commands are:

+++info

+++sta

+++ip

for a list of these see the resources at the back of this text.

Indicator LED (L2)

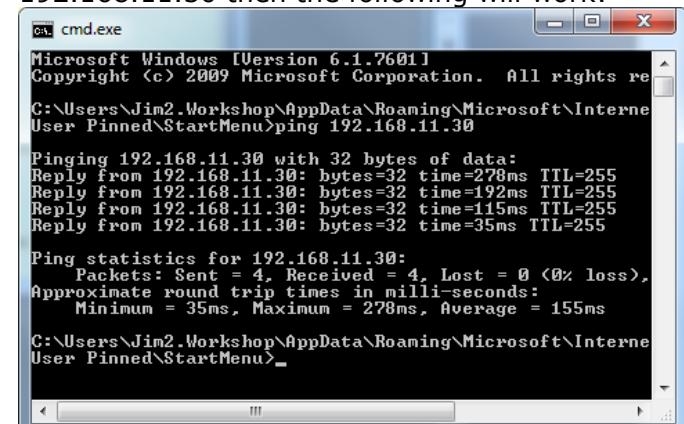
Led off: Normal operation

Led on: Not enough power to operate the wifi, the device will not work if the led is continuously illuminated. (Except full configuration as above)

Led short flash: Device is ready to be configured (not configured yet). This can also mean that the selected wifi router cannot be found, it either does not exists (wrong SSID or password has been input) or it is out of range.

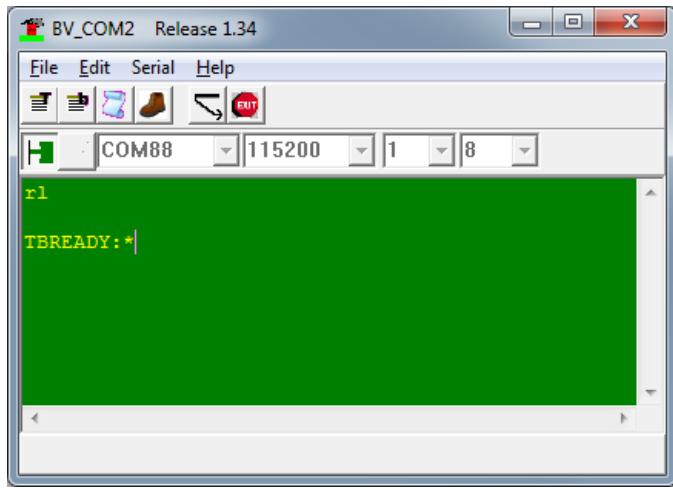
Testing

You should be able to ping the device using a command window, assume the device is set for 192.168.11.30 then the following will work:



(Fig 3 Ping test)

To test further you will need to connect something to the serial port. As an example there is a USB to serial connected to the serial end and BV_COMM is running that gives the following output:



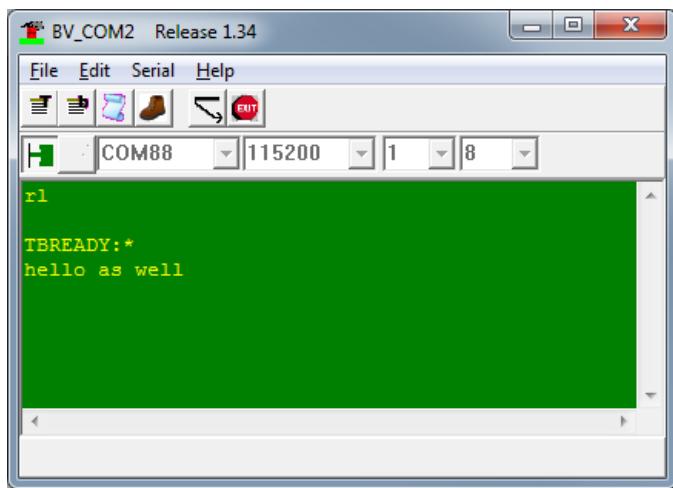
(Fig 4 BV_COMM connected to serial end)

Open a command window and type telnet 192.168.11.30 (or whatever IP address you have used).

The telnet screen will be blank, type something in the BV_COMM (green) window and it will appear on the telnet screen. By default BV_COMM does not echo so you will not see any text appearing on the green screen. Now type something on the telnet screen and that will appear on the BV_COMM screen.



(Fig 5 telnet screen)



(Fig 6 BV_COMM screen session)

Telnet is just convenient, BVSerial also works and there are some simple python programs that can also talk to a socket.

There is also a set of commands that can be used when a connection is established. For more information see resource [2].

Resources

- [1] <http://www.bypic.co.uk/index.php/>
- [2] http://www.bvvac.com/index.php/WiFi_Setup
- [3] <http://www.bvvac.com/index.php/BV107>
- [4] <http://www.bvvac.com/index.php/Downloads>
- [5] <http://www.bvvac.com/index.php/projects>

- [1] The product index for all devices
- [2] More details on setting up wifi
- [3] Product page for the BV107
- [4] Python program utilities to create a telnet like program and BV_COMM and BVSerial
- [5] Projects page

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