

Network Configuration

In general, the system runs in one of two modes. Either it is operating as an irrigation controller or it is waiting for a network configuration so that it can start operating as an irrigation controller. When a valid network has been configured the system will automatically start operating as a controller and use of the web interface and app interface will be available.

If you are hardwired via an Ethernet cable, then no wireless connection is necessary and the system will recognize that you are connected via Ethernet and immediately bring you into irrigation operating mode. Hardwired Ethernet connectivity is only supported when the router provides an IP address through DHCP.

If you are hardwired via an Ethernet cable and also have a wireless connection, then the network configuration mode is still enabled so that you can set up your wireless network configuration which is described below.

When the device is powered on and waiting for a network configuration it will broadcast a wireless signal on SSID: IrricloudAP. This takes about 20 seconds so be patient. Use your phone or nearby computer to connect to that network. The password is: GetWetNow. (without the trailing "."). If you are also connected via Ethernet, you can open a browser to the Ethernet IP address (eg, 192.168.1.140) from another device on the same network and enter the configuration through that web page rather than needing to connect to the IrricloudAP wireless access point.

Once connected to IrricloudAP access point, go to <http://10.0.0.1/> and you will come to a configuration screen similar to the following:



The screenshot shows the 'IRRICLOUD SPRINKLER' configuration page. At the top, there is a green header with the 'SIP' logo on the left and the text 'IRRICLOUD SPRINKLER' on the right. Below the header, a status bar shows the time '13:32' and the date 'Monday 31 August'. The main content area has a light green background and contains the following text: 'Select network or enter hidden SSID and provide password. Only WPA and WPA2 (Personal) protocols supported. Use DHCP to automatically get IP address, or configure a static IP address.' Below this text are several form fields: 'SSID' with a dropdown menu showing 'Koblenz-APS', 'Hidden SSID' with a text input field, 'Password' with a text input field, 'Use DHCP' with a checked checkbox, 'Static IP' with a text input field, 'Netmask' with a text input field, and 'Gateway' with a text input field. At the bottom left of the form is a 'Submit' button.

Any wireless networks that are visible will be in the SSID list and they are ordered based on decreasing signal strength. Presumably taking the first entry will be your best choice. Only networks using WPA and WPA-2 Personal encryption schemes are supported. You can select the network of choice, or you can enter your own network name in the “Hidden SSID” field. Enter your appropriate password to allow you to connect to that network.

Most connections to an access point (WAP) will use DHCP to get a local IP address. If this is the case, keep the “Use DHCP” box checked and click “Submit”. Your network connection to IrricloudAP should drop and your device will now be connected to your new wireless access point.

If you want to define a fixed IP address for your device, you can uncheck the “Use DHCP” box, and enter the IP address you want to use, and a corresponding netmask and gateway. Click “Submit” and you should be connected.

If there is trouble getting connected, the system will bring you back to the Network Configuration mode and start broadcasting the IrricloudAP SSID again.

In order to find the new IP address of your controller you need to log into your wireless access point and find a device whose name starts with Irricloud. You should be able to open a web page at that IP address and see a login screen from where you can access the controller.

This should continue to work indefinitely as long as your router and controller run uninterrupted. If one or both of them reboots most routers will continue to use the same IP addresses when the device comes back up but that is not guaranteed. In order to ensure that your controller always has the same IP address you will need to either assign a static IP address in the network configuration described above (and ensure that your router will not use that for any other purpose) or make your router always assign the same IP address to your specific device. Each router’s management interface is different, but this static assignment is generally found associated with the LAN and DHCP Server sections of your router. You will match the IP address with the MAC address from the controller. That MAC address (typically 6 groups of 2 characters separated by colons) should be visible on your router and associated with the IP address of the controller.

Once you have a fixed IP address for your controller you may want to access your controller from outside of your local network. In order to do that, you will need to add some port forwarding to your router and know the external IP address of your router.

The routers external IP address can be found by asking your ISP (Internet Service Provider) or by going to <https://www.whatismyip.com/>. The IP address shown by that website will typically be your externally visible IP address. Typical output from whatismyip looks like (with some obscuring of the numbers):

Your IP Address Is:

63.100.100.100

[My IP Information](#)

[Check for Proxy](#)

Port forwarding is typically found in the WAN / Port forwarding management section of your router. A typical port forward may look like:

Port Forwarding List (Max Limit : 32)				
Service Name	Port Range	Local IP	Local Port	Protocol
Irricloud	9080	192.168.1.140	80	TCP

Where the external reference 63.X.X.X:9080 will be forwarded to your actual device 192.168.1.140:80.

Once the port forward is set up and you are not on your local network, you can still get to your controller by typing <http://63.X.X.X:9080> into a browser.

Similarly, if you are using the OSPi Sprinkler app you will want to use an IP address like 63.X.X.X:9080 to access your controller remotely. You can still use 192.168.1.140 (or 192.168.1.140:80) to access it locally.