

## Chapter 2

# Connecting to your WattmonPRO

This chapter will walk you through the process of connecting to your WattmonPRO. While this procedure assumes you are using Microsoft Windows, if you are on any other operating system, the procedure will vary slightly but you will most probably be able to follow the logic and find similar options in your operating system.

If you are connecting to the WattmonPRO via a direct cable to your laptop or computer, you can follow the section on Connecting via a static IP. However, if you wish to connect to your WattmonPRO via DHCP, you will need to follow section 2.2

### 2.1 Connecting via a Static IP

The WattmonPRO comes preconfigured to use a static IP address of 192.168.0.55. There are several steps involved in getting your WattmonPRO configured the first time. The first step is to make sure you can ping your WattmonPRO device. If you are comfortable with networking you can just skim through the following sections and pick out the relevant information.

If you have changed the IP address on the WattmonPRO, in order to reset the device to its default static IP, power up your WattmonPRO, then press and hold the reset button for about 5 seconds until the script light stops blinking. Re-power your WattmonPRO, and it will now use a static IP address of 192.168.0.55.

#### 2.1.1 Computer Network Configuration

Most machines connect to the network using a mechanism called Dynamic Host Configuration Protocol (DHCP) which automatically assigns your computer an IP address. These IP addresses come in different IP subnets depending on the manufacturer of your router. The most common IP ranges are 192.168.0.x and 192.168.1.x. If your IP address range is different from the WattmonPRO default IP address range, you will need to temporarily reconfigure your computer's IP address using the following guide in order to set up your WattmonPRO.

##### 2.1.1.1 Determine Your IP Address

If you are unsure of your IP address, run `cmd.exe` (Click the *Start* button in Windows, and in the search box type `cmd.exe` and press enter). In the window that appears, type in:

```
ipconfig
```

and press Enter.

You should see something similar to the figure below.

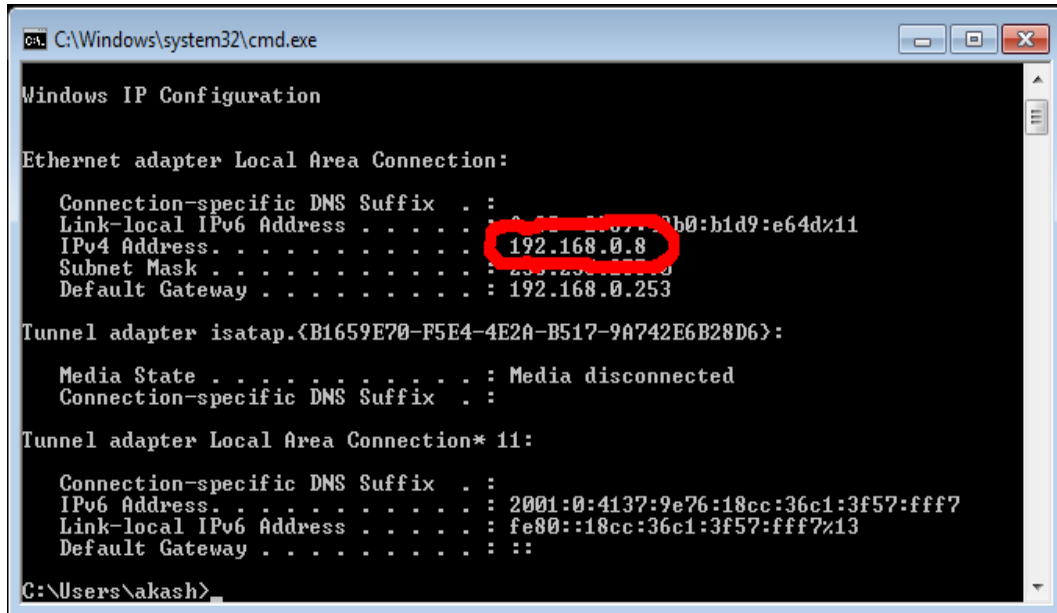


Figure 2.1 Results of ipconfig command showing your IP address

The IP Address is in this case **192.168.0.8** which is in the same range ( **192.168.0** ) as the WattmonPRO, so you can skip the step where you need to set your IP temporarily. If for example your IP address would be 192.168.1.7 (192.168.1 range) you would need to temporarily change the IP address to configure your WattmonPRO.

### 2.1.1.2 Configure Your IP Address

In order to set your IP Address, you need to open the network and sharing center as follows:

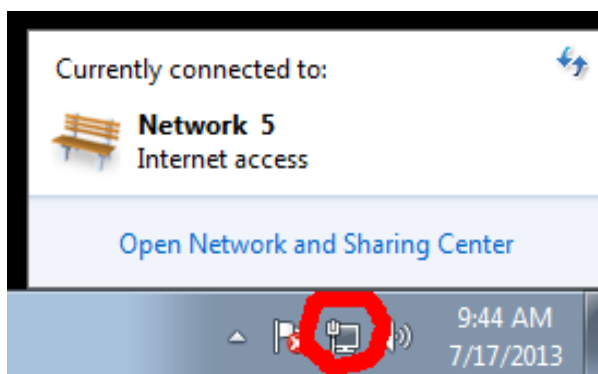


Figure 2.2 Opening the Network and Sharing Center

On the lower right hand corner of the task bar, click the *Network* icon, and then click *Open Network and Sharing Center*.

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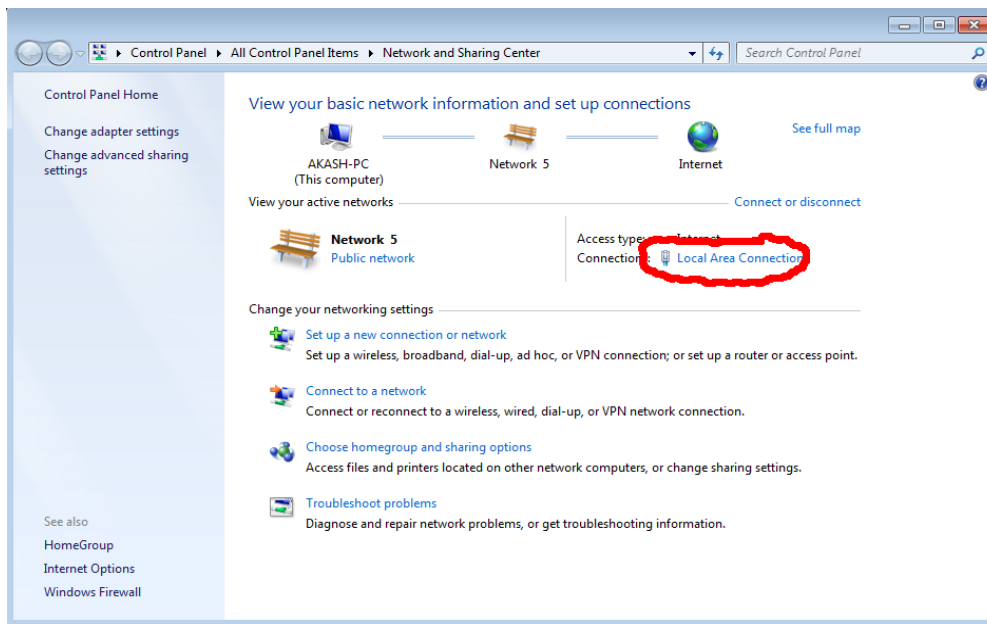


Figure 2.3 Network and Sharing Center

Next, click the *Local area Connection* or *Wireless connection* settings in a similar location on the screen to the red circled area (Figure 2.3). The *Connection Status* window appears (Figure 2.4). Click the *Properties* button.

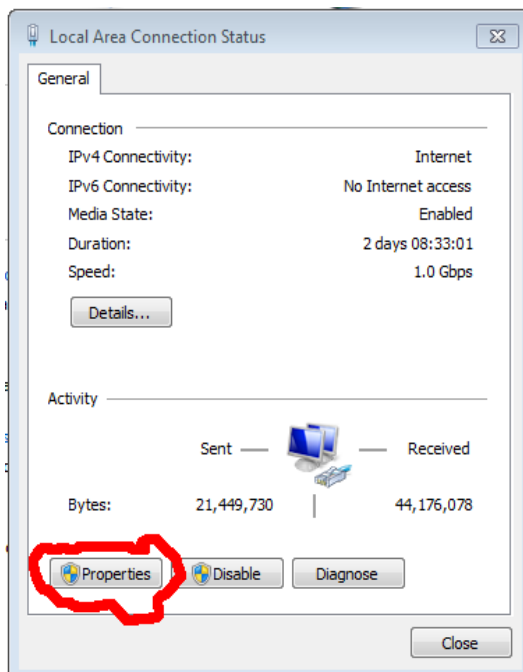


Figure 2.4 Connection Status Window

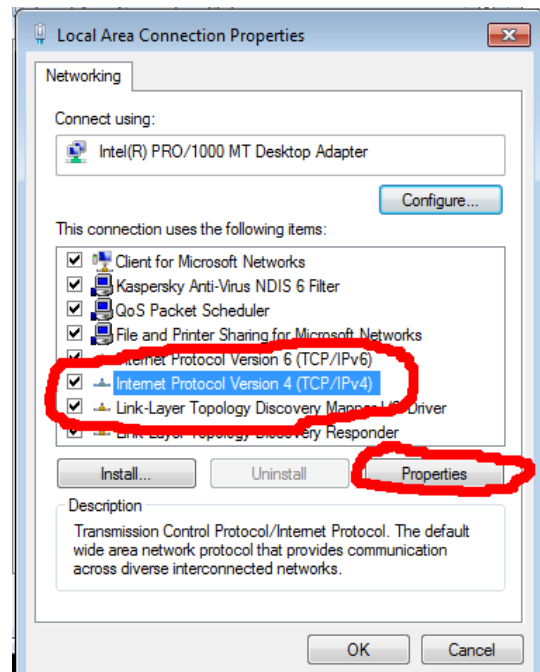


Figure 2.5 Connection Properties Window

Next, in the *Properties* window, Select *Internet Protocol Version 4* in the list and click *Properties* (Figure 2.5).

Now copy over the exact information you see in the *Properties* window, including which radio buttons are checked and the values in all the fields so you can restore this later.



**Warning:** If you do not properly reconfigure your connection after you finish setting up WattmonPRO, your Internet connection may not work anymore.

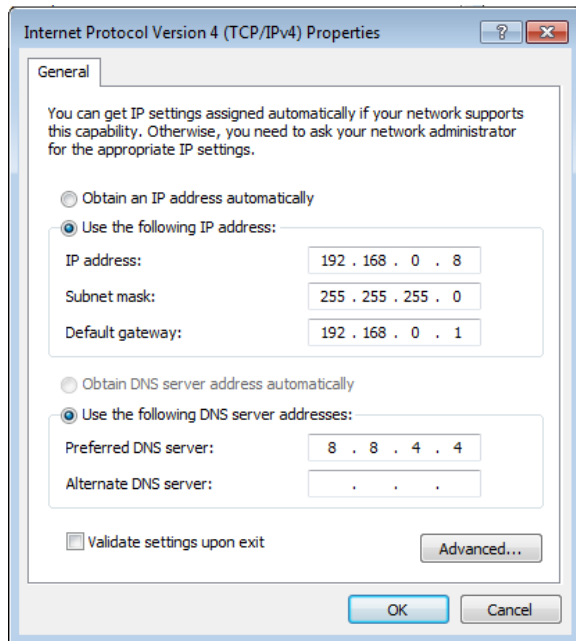


Figure 2.6 TCP/IP Properties Window

If *Obtain an IP address automatically* is selected, check the *Use the following IP address*, and the right fields will be visible. If *Use the following IP address* is selected and the fields already have values entered, make a note of those before replacing them, since you will need them to re-enable your internet connection. Enter the following information into the corresponding fields:

- IP Address: 192.168.0.8
- Netmask: 255.255.255.0
- Gateway: 192.168.0.1

You can ignore the DNS section.

Click *OK* until the settings are applied.

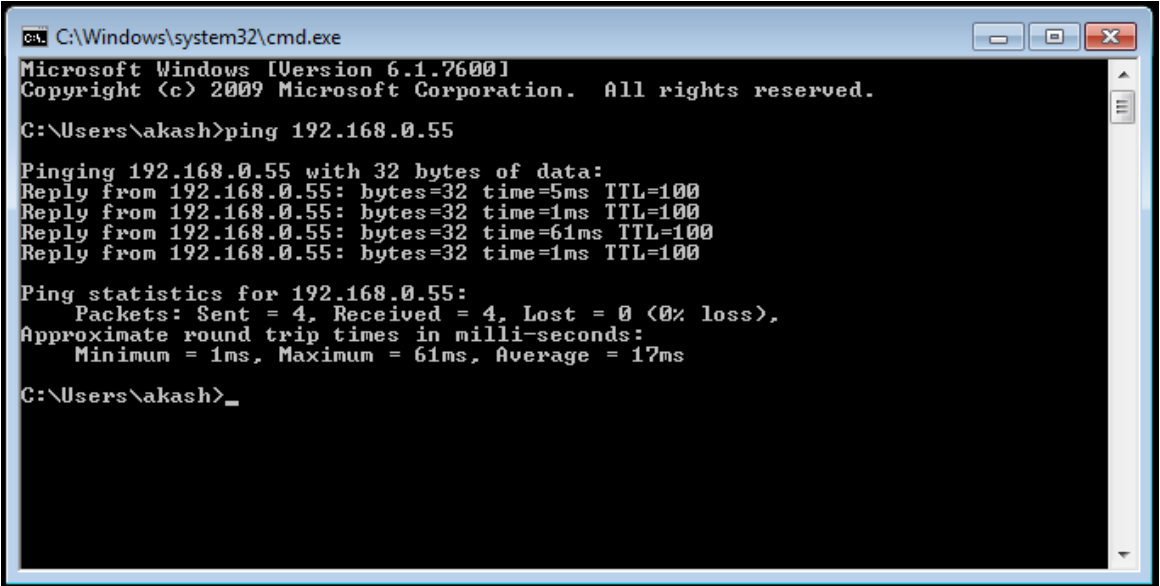
Your internet connection will now be unusable until you restore the settings to their original values. Follow the same instructions to reach this page and then just re-enter the settings you noted down previously to restore your Internet connection once the WattmonPRO IP address is properly configured.

### 2.1.1.3 Ping Wattmon

Once you have an IP address in the same range, run *cmd.exe* again, and this time type in:

```
ping 192.168.0.55
```

and press *Enter*. You should see something similar to what is shown below and there should be a reply from the device.

A screenshot of a Windows command prompt window titled "C:\Windows\system32\cmd.exe". The window shows the output of a ping command. The text in the window is as follows:

```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\akash>ping 192.168.0.55

Pinging 192.168.0.55 with 32 bytes of data:
Reply from 192.168.0.55: bytes=32 time=5ms TTL=100
Reply from 192.168.0.55: bytes=32 time=1ms TTL=100
Reply from 192.168.0.55: bytes=32 time=61ms TTL=100
Reply from 192.168.0.55: bytes=32 time=1ms TTL=100

Ping statistics for 192.168.0.55:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 61ms, Average = 17ms

C:\Users\akash>_
```

Figure 2.7 Ping response showing successful connection to the Wattmon device

If instead you see a response as shown in Figure 2.8 it means that you have either not switched on the WattmonPRO or connected it properly, or that you may have missed a step when trying to set the IP. Check your cabling, and finally verify that the IP address matches 192.168.0.8 if you set it manually in the previous step. If not, repeat the previous step until this matches.

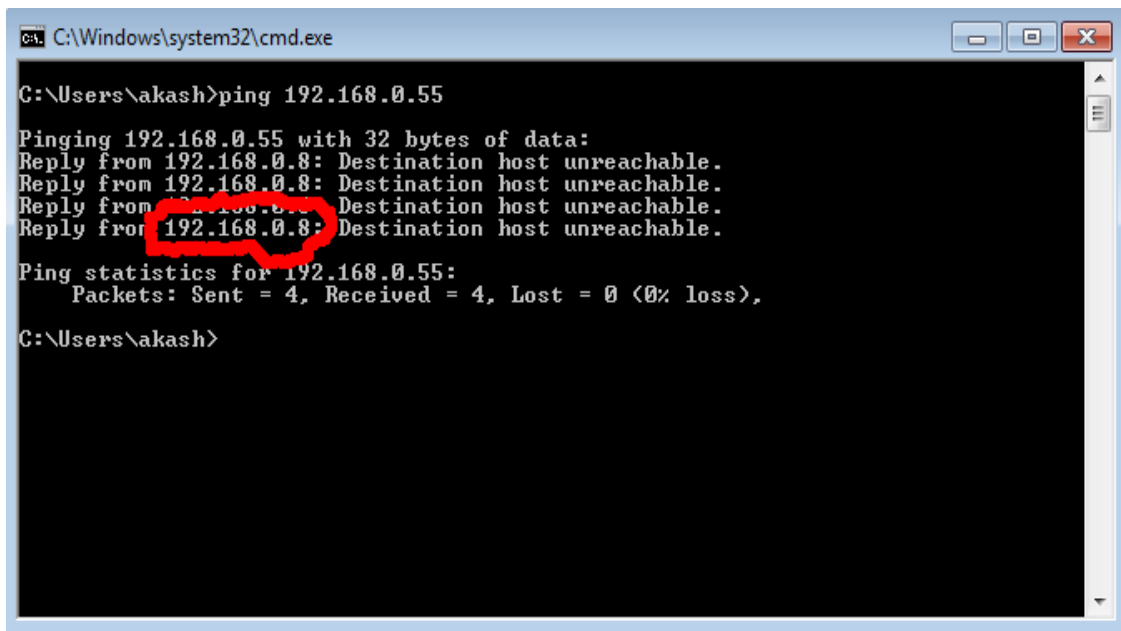


Figure 2.8 Ping response showing a connection problem

Once you get the ping successfully working you can connect to your device through a browser and start the next part of the setup.

Open your favorite browser (Firefox, Chrome and Safari are recommended) and type in <http://192.168.0.55> in the address bar, then press *Enter*. You should see the Wattmon login page – continue on to section 3.1 to proceed further.

## 2.2 Connecting via DHCP

Although the WattmonPRO comes preconfigured to use a static IP, you can change it to use DHCP. To change your WattmonPRO to use DHCP, proceed to a browser of your choice, and access your WattmonPRO by visiting <http://192.168.0.55>. Login to your WattmonPRO following the instructions in Section 3.1.

Once on the *Wattmon Dashboard*, click on *Control Panel* on the navigation menu on the left hand side. Once on the *Control Panel* page, navigate to the *Network Setup* page (detailed in section 3.4.5), and click on it. In the *Network Setup* page, select *Dynamic IP (DHCP)*. Upon selecting *Dynamic IP*, another option will appear called *TCP Server Export*, which will by default be set to *Not enabled*. For more details on TCP refer to section 3.4.5. To save your selection, click on *Save Changes*, and reboot the WattmonPRO.

Next, in your browser, navigate to <http://www.wattmon.com/live/>



### Wattmon Connection Wizard

If you would like to connect to your Wattmon to configure it, please plug it in to your router via the Ethernet port at the back. Ensure that your router has DHCP enabled, and power up the Wattmon. Within about 2 minutes, Wattmon will have connected to the server to announce its presence.

If you would like to connect to your Wattmon locally to configure it, enter the MAC address of your Wattmon exactly as shown at the back of the device (along with the - characters. i.e 00-04-A3-14-67-31):

MAC Address:

Figure 2.9 Wattmon.com live connection wizard

On the right side of your WattmonPRO, you will see a label which has the MAC address. Copy this into the *MAC Address* field, including the characters, in capital letters, as the MAC is case-sensitive. Next, click the *Connect* button.



### Wattmon Connection Failed

Wattmon has so far been unable to establish contact with the server. This could be due to various reasons. This script will keep retrying every few seconds until a connection is established.

The MAC address you entered is: D8-80-39-0C-BB-64

If this is wrong, click [HERE](#) to enter a different one.

Figure 2.10 Wattmon.com live connection wizard – connection failed

The page will refresh once every few seconds until the WattmonPRO device contacts the server. In the meantime, it may display a *Connection Failed* page as shown in figure 2.10, where you may verify the entered MAC address and change it if needed.



### Wattmon Connection Established!

Congratulations, your Wattmon is now connected to the Internet!

This device is currently at <http://192.168.0.55:80>

In future, you can access your device from anywhere using this link:  
<http://www.wattmon.com/live?>

Figure 2.11 Wattmon.com live connection wizard step 2

Once your WattmonPRO has reached wattmon.com, you will see the screen as shown in figure 2.11. At this point you can save the link as a bookmark if you wish. To connect to your WattmonPRO, click *Go To Wattmon*. You will now be asked to log in - go on to section 3.1 to continue.