MeteoBridge
Personal Weather Router
DB100AU

Powered by

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1 Introduction

This guide aims to help you connect your MeteoBridge server to your LAN or WLAN and use a Davis Weatherlink Data Logger with the MeteoBridge.

This guide is for the basic operation of MeteoBridge used exclusively with Davis Vantage Vue and Vantage Pro 2 weather stations. For information on compatibility and use of other branded weather stations please refer to the developers' wiki at www.MeteoBridge.com.

There are 3 key pieces of information associated with the MeteoBridge that will be identified throughout the setup process. Record them here.

MAC Address	
IP Address	
License Number	

Davis Instruments Australia provides a router configured with the MeteoBridge firmware. We provide assistance with technical issues related to the operation of Davis weather stations and communication between them and the MeteoBridge.

For questions related to the use of MeteoBridge with other branded stations, weather networks and push services please consult www.MeteoBridge.com.

2 Contents

Your MeteoBridge comes supplied with

1. MeteoBridge Router TL-MR3020
2. MeteoBridge AC adaptor
3. Ethernet Cable
4. This Guide

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3 Connecting your MeteoBridge to your LAN

For initial configuration you need to connect the MeteoBridge directly to your LAN router.

Connect the MeteoBridge via Ethernet to a spare port on your router and plug in the AC adapter.

Your router will automatically assign an IP address to the MeteoBridge. The next step is to identify this IP number. To help with this make a note of your MeteoBridge MAC address, located on the side of the device.

NOTE: The MAC address may be displayed in a number of formats,
e.g. E8DE2769AEC0
E8:DE:27:69:AE:C0
e8-de-27-69-ae-c0

3.1 Finding the MeteoBridge

There are numerous ways to verify the IP of the MeteoBridge, for all of them ensure your computer is connected to the same network as the MeteoBridge.

- Use the Magic IP Finder
- Interrogate your Router
- Use a network software scan tool
- Write IP address to a USB stick
- Read the blinking Status/Reset Lights

3.1.2 Magic IP Finder

If your PC and MeteoBridge are in the same network and the MeteoBridge has a solid green status light it has established a connection with the internet. In this case use your web browser and go to:

http://magicip.meteobridge.com

If prompted for a Username and Password enter:

Username: meteobridge
Password: meteobridge

3.1.2 Interrogate your Router

Open a web browser and enter the IP of your LAN router. If prompted enter your User name and password. Then view connected/attached devices.

Find the Physical Address (MAC address) that corresponds to your MeteoBridge and

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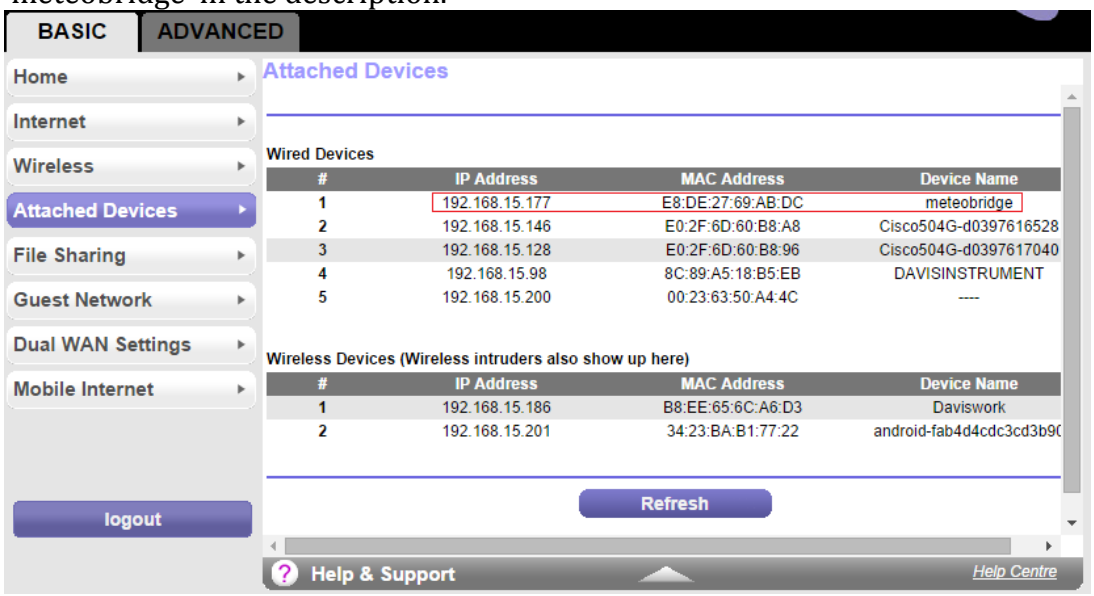
the IP is listed next to it. Depending on your LAN router it may be named ‘meteobridge’ in the description.

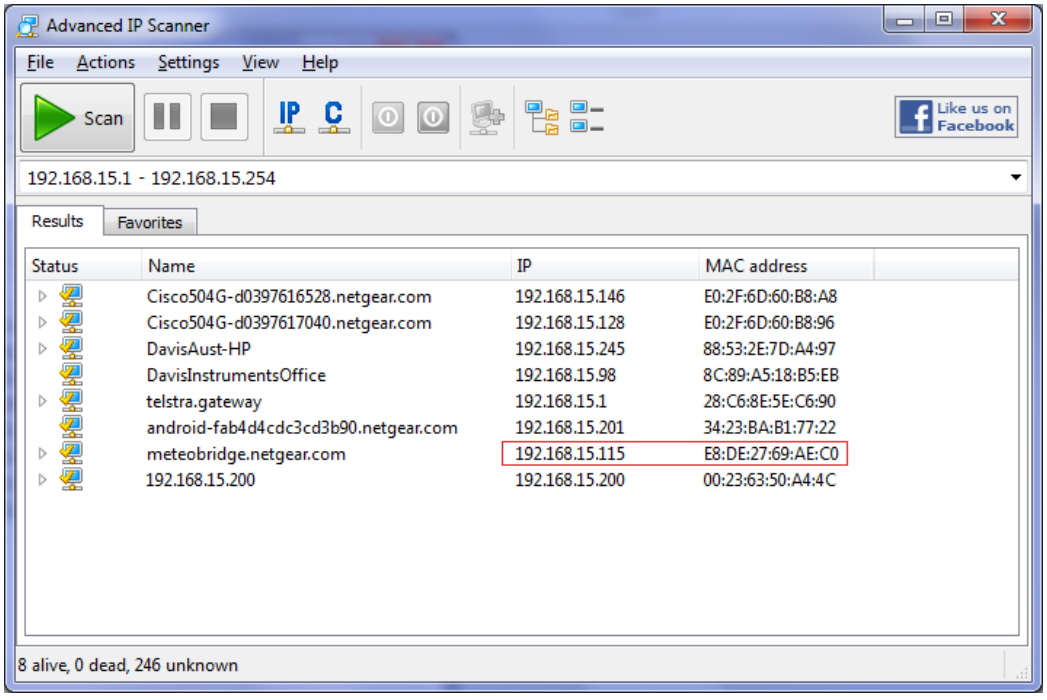


3.1.3 Software Scan Tool

You can download a free IP scan tool here:

http://www.advanced-ip-scanner.com

Select the **Scan** button in the software. After the scan is complete, find the IP address associated with the MAC Address of your MeteoBridge.



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3.1.3 Using USB Stick

For this method you need a blank USB memory stick formatted to FAT32. Insert it into the MeteoBridge, press the reset button once and a network.log file will be created.

Once the MeteoBridge shows a solid green status light disconnect the USB and insert it in your computer.
Open the network.log file with a text editor and your IP should display as:

Fri Aug 1	00:23:16 UTC 2014
MAC:	E8:DE:27:69:AE:C0
LAN IP:	192.168.15.115

3.1.4 Reading the Blinks from the Status/Reset Light

MeteoBridge can display its IP address through the flashing of its status light. For this method you need a pen and paper to write down the IP address.

Ensure that your status light is solid green and then press the WPS/Reset button once.

The status light will turn off and then start blinking the IP pattern with a combination of short flashes, for numbers, and long flashes, for dot separators.

IP address = 192.168.15.115
S = Short flash, L = Long Flash, _ = LED is OFF

Light Pattern	Comment
S_S_S_S_S_S_S_S_S_S_L	192.
S_S_S_S_S_S_S_S_S_S_S_S_S_S_S_L	168.
S_S_S_S_S_L	15.
S_S_S_S_S_S_	115

3.2 Communicating with MeteoBridge

Once you have identified your MeteoBridge IP address you can start communicating with it via the Web Interface. Simply enter the IP address into your browser to open the Web Interface.

Default login details are:

Username: meteobridge
Password: meteobridge

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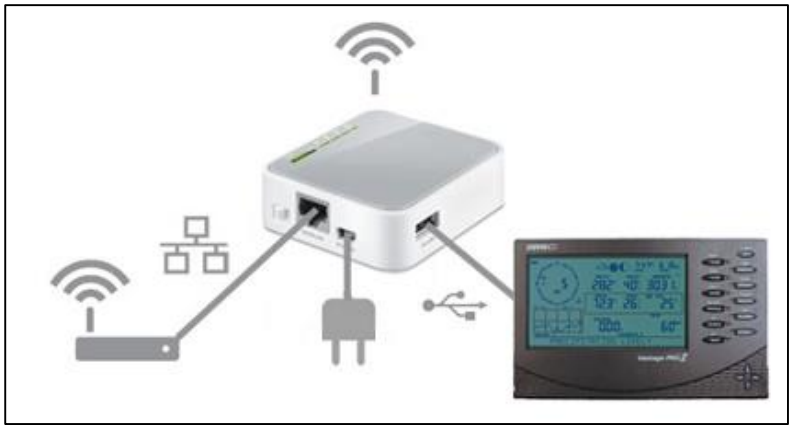
4 Connecting Your Data Logger

The MeteoBridge can connect to Weatherlink USB 6510USB and Weatherlink IP 6555 loggers. If you have a Weatherlink Serial 6510SER logger you will need to use Serial to USB cables and converters. Ensure your data logger is mounted correctly in your Console or Envoy and the Serial Baud Rate is set to the default 19200.

4.1 Davis Weatherlink USB

Ensure your MeteoBridge is connected to your Network either via LAN or WLAN
Connect the USB into the MeteoBridge USB port



4.2 Davis Weatherlink IP

For IP loggers there are two ways of connecting the logger, either into the LAN router or into the MeteoBridge router.

For both it is recommended to set the WLIP to a static IP, see appendix A for the procedure.

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4.2.1 Connecting into LAN router

Connect the WLIP and the MeteoBridge into the LAN ports of your router, as shown below.

4.2.2 Connecting into MeteoBridge router

For this setup the MeteoBridge needs to be configured to connect to a WLAN and to act as a bridge.

Open the MeteoBridge Web Interface.
Select Setup Network tab.
Select connection type Wireless LAN and enter in your network details.
Ensure LAN Bridge is selected.
Click Save and Apply and Reboot.

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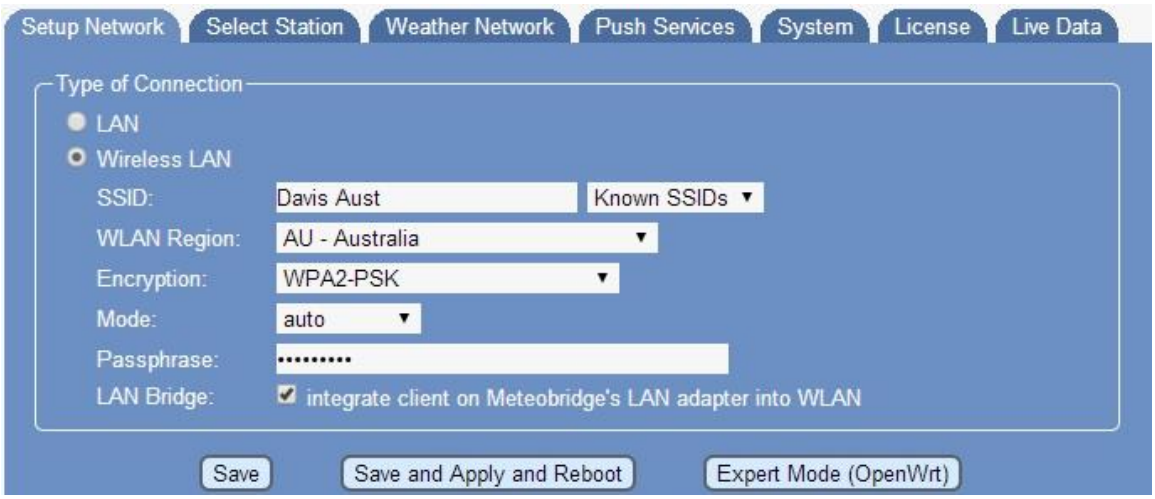

Connect the WLIP directly into the Ethernet port on the MeteoBridge.

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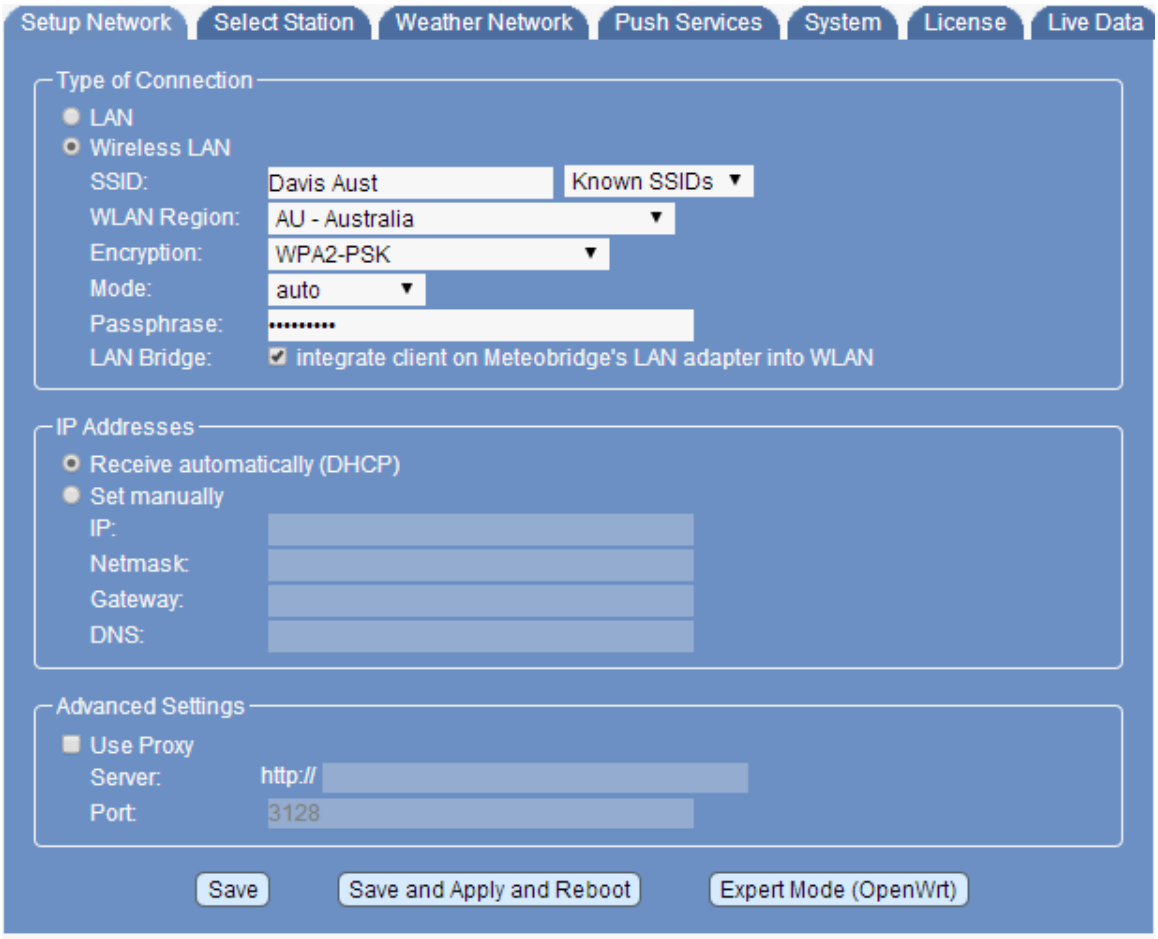
5 Web Interface

The Web Interface is used to configure all MeteoBridge settings. Enter your MeteoBridge IP address into a web browser and if prompted use the following login details.

Username: meteobridge
Password: meteobridge

5.1 Setup Network



5.1.1 Type of Connection

Choose either LAN or Wireless LAN. For Wireless LAN enter your wireless network details and select 'Save and Apply and Reboot' then disconnect the Ethernet cable. Your MeteoBridge should still be accessible at the same IP address.

Note: To use the MeteoBridge Ethernet port with WLIP ensure LAN Bridge is selected.

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5.1.2 IP Address

MeteoBridge receives a dynamic IP normally. If you need to set a static IP you can enter the details here. Make sure to 'Save and Apply and Reboot' to activate any changes.

5.1.3 Advanced Settings

MeteoBridge can work through a proxy server, specify its details here. Make sure to 'Save and Apply and Reboot' to activate any changes.

For more detailed information on the options contained on the Setup Network page visit

www.meteobridge.com/wiki/index.php/Setup_Network

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5.2 Select Station

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5.2.1 Weather Station

For Davis stations it is important to specify what type of logger you are using. For WLIP you need to specify the IP of the data logger. If you have changed the port settings for the WLIP they need to be specified here as well.

Enter the IP and port (separated by a colon) in the "WLIP" input field (example: "192.168.1.222:10001").
When no port is specified the WLIP default port (22222) is used.

5.2.2 Weather Cam

Allows you to pair a weather camera with your MeteoBridge data uploads. Only Ubiquiti AirCam is currently supported.

5.2.3 Local Settings

Allows you to specify offsets and calibrations for certain readings.

Note: Historical data refers only to the maximum and minimum values which MeteoBridge stores on a remote server in case of network failure.

Note: Station Altitude is used to calculate pressure. It is important to enter an accurate altitude.

For more detailed information on the options contained on the Weather Station page visit

www.meteobridge.com/wiki/index.php/Select_Station

5.3 Weather Network

This allows you to upload to the predefined weather networks. You will need to have or setup an account with the weather networks before you can upload to them.

Select a service to add from the drop down menu and enter the requested details. Once you click save MeteoBridge will reboot and apply the changes.

For more detailed information on the setup of the network feeds visit

www.meteobridge.com/wiki/index.php/Weather_Networks

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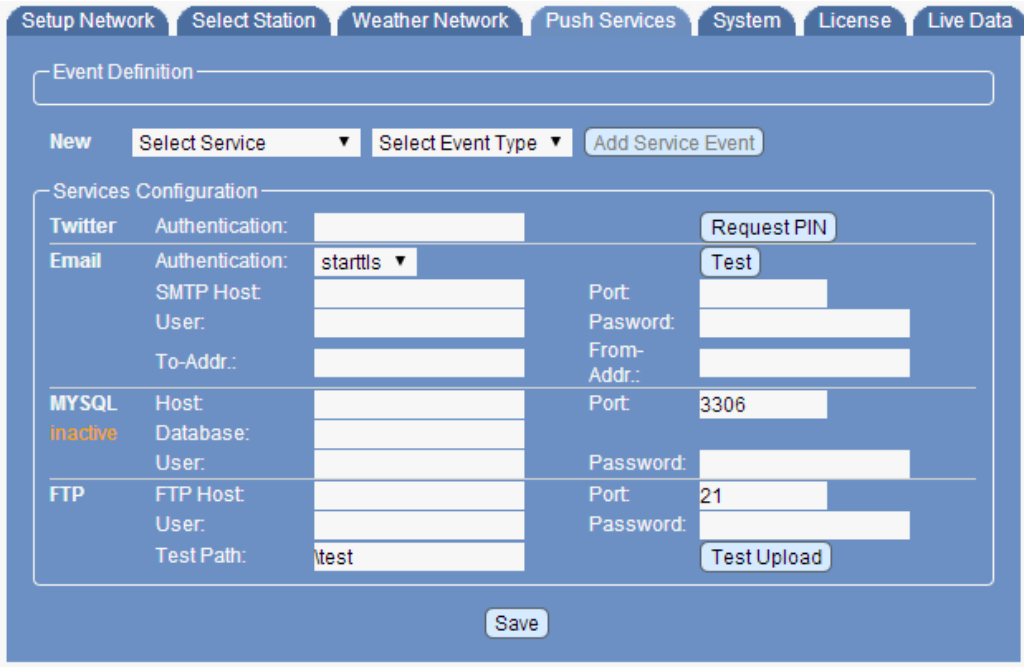
5.4 Push Services



This allows you to setup push services to emails, twitter feeds, FTP feeds and MYSQL databases. MeteoBridge also supports HTTP requests and implementation of user defined scripts.

Once you have set up a push service you can then specify when they will be used. This can be set as periodic, scheduled or when a user defined alarm is triggered.

For a detailed look at the push services provided and how to use them visit

www.meteobridge.com/wiki/index.php/Push_Services

Additional information on how to express alarm conditions can be found at

www.meteobridge.com/wiki/index.php/Push_Services#Alarm_Conditions

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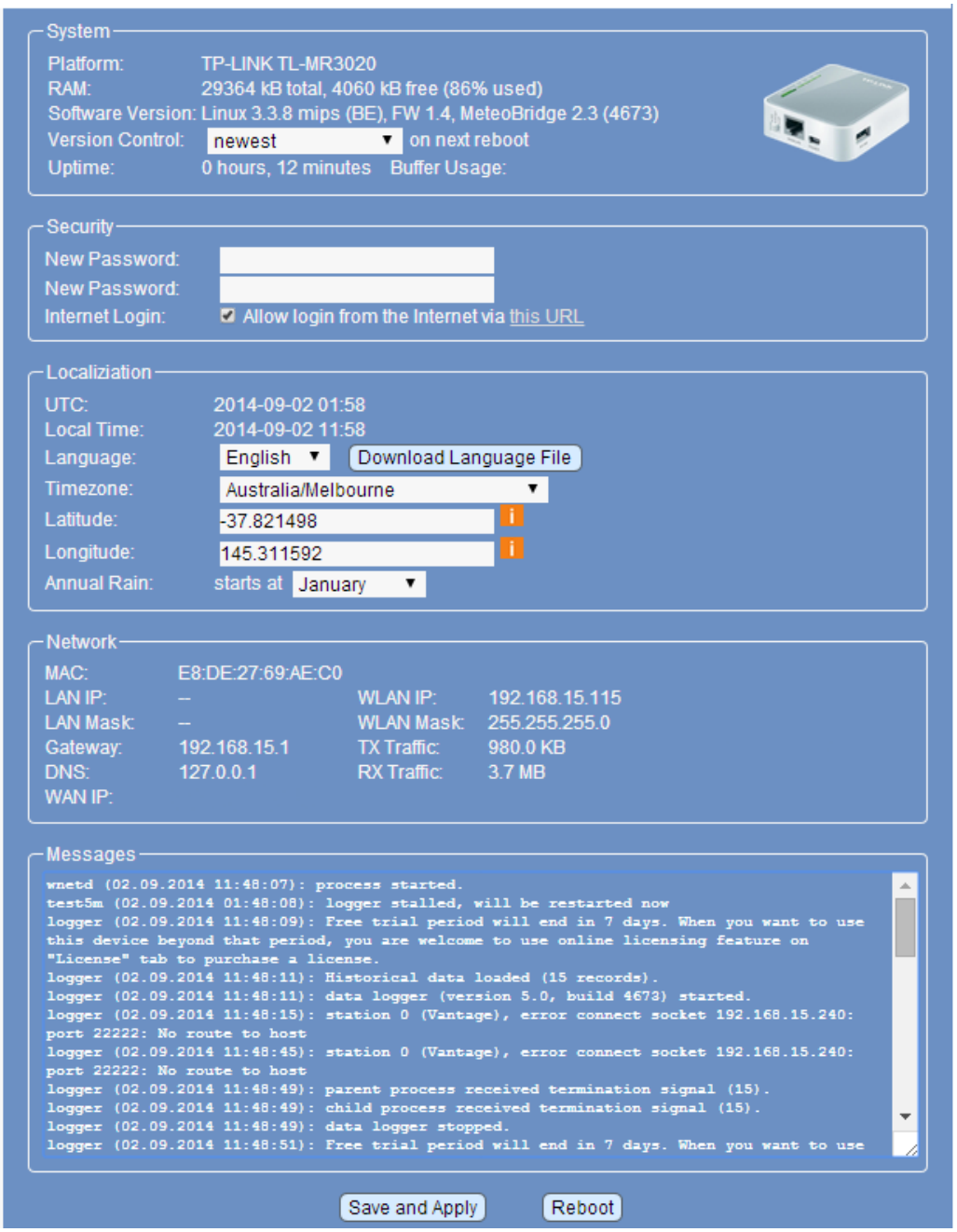
5.5 System



5.5.1 Security

This allows you to change the password needed to access your MeteoBridge from the defaults.
If Internet Login is enabled you can access your MeteoBridge remotely at the supplied URL. If this option is enabled you should change the password from the defaults.

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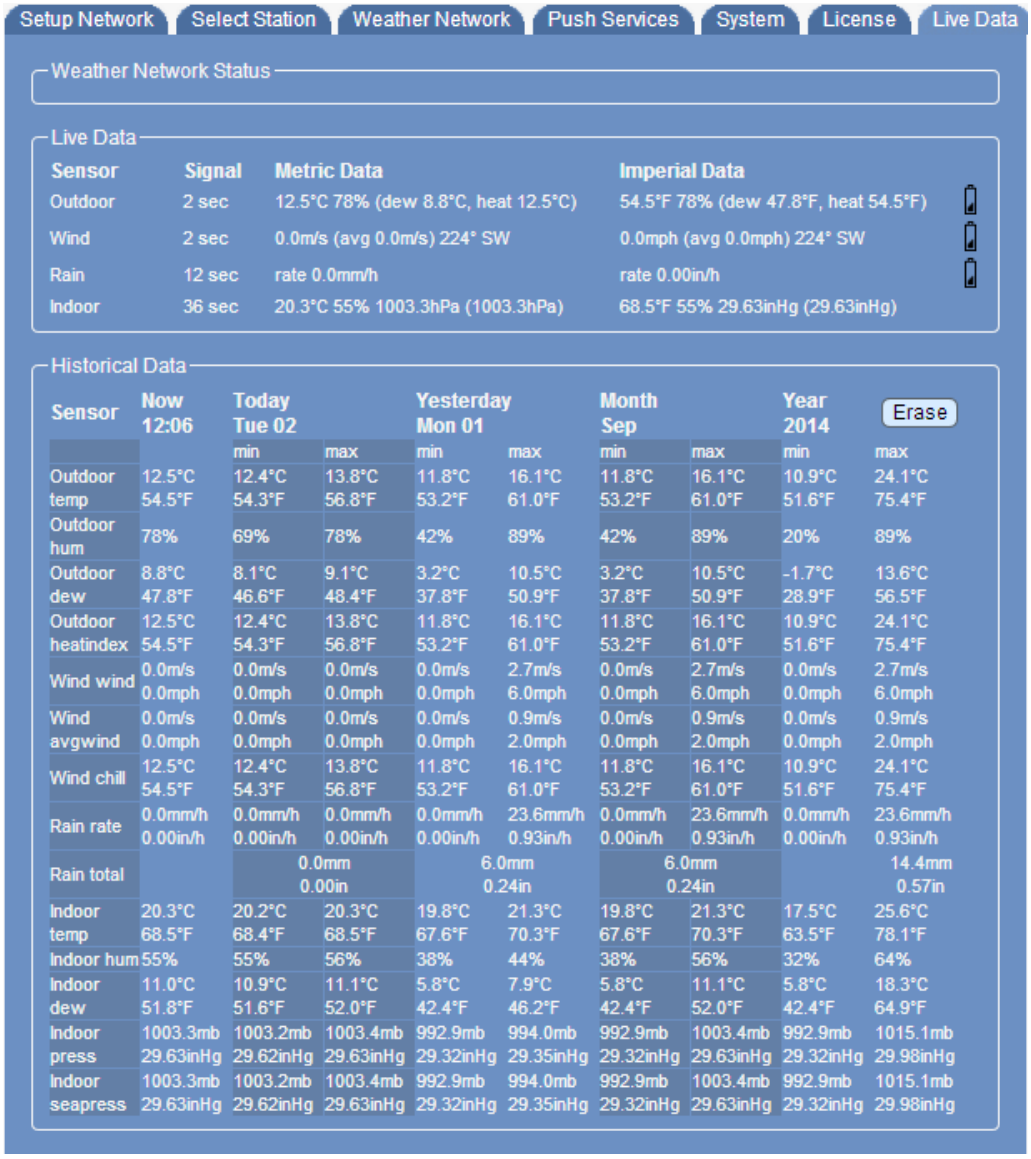
5.5.2 Localization

This allows you to set the location and time zones associated with your MeteoBridge. The orange exclamations provide links to a latitude/longitude finder.

5.6 License

Displays your License number and shows MeteoBridges terms and conditions. Davis Instruments Australia licenses all devices before dispatch. You will need to quote this number for any technical support or warranty claim through Davis Instruments Australia.

5.7 Live Data



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5.7.1 Weather Network Status

This displays the times of the last weather network upload and if it is successful.

5.7.2 Live Data

Shows the current data as well as the time since the last signal was received.

5.7.3 Historical Data

Displays the maximum and minimum values recorded by the MeteoBridge. This data is stored by the MeteoBridge servers and reloaded in the event of the MeteoBridge losing power. To edit the stored values click on them.

6 Trouble Shooting

6.1 Restoring the Dynamic IP Address

If you cannot access the web interface connect the MeteoBridge directly to your router. Press and hold the status light until it blinks once, then let go. The MeteoBridge will reboot and revert to using a DHCP assigned IP address. Once the MeteoBridge status light is solid green go through the steps in chapter 3 to retrieve the IP address.

6.2 Restoring Default Passwords

If you can access but not login to the web interface connect the MeteoBridge directly to your router. Press and hold the status light until it blinks twice, then let go. The MeteoBridge will reboot and reset all passwords to their defaults

Login: meteobridge
Password: meteobridge

6.3 Restoring to Factory Default

To restore the MeteoBridge to factory default, connect the MeteoBridge directly to your router. Press and hold the status light until it blinks five times, then let go. Once the MeteoBridge status light is solid green go through the steps in chapter 3 to retrieve the IP address.

6.4 No Live Data

The most common cause for no live data is having the wrong station selected.
Ensure the correct station is selected in the Select Station tab and click save

Ensure the data logger is connected into the console and that the consoles Baud Rate is set to 19200. For details on how to set the Baud rate see page 14 of your Davis Console manual.

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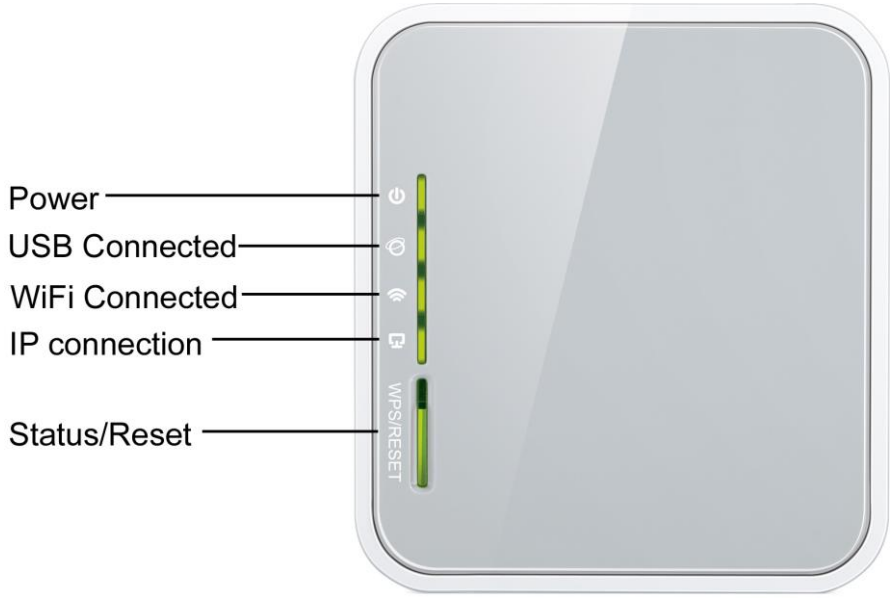
6.5 MeteoBridge Indicator Lights



Power light should always be on and solid green.

USB light will turn on once a USB data logger is connected and initialised in Select Station. This can take a few minutes to come through.

Wi-Fi Connection flashes continually when connected to Wi-Fi

IP Connection will be flickering green when an IP station is connected and initialised in Select Station. This can take a few minutes to come through.

Status/Reset will be solid green in normal operation. It will flash during start up, reboots and when signalling IP address.
If flashing rapidly for a long period of time the MeteoBridge cannot find an internet connection.

6.6 Recovering Unreachable MeteoBridge

If your MeteoBridge is unreachable on LAN or WLAN you can create a boot configuration and load it via a USB memory stick.

Goto http://config.meteobridge.com/

Set you Network and Station settings to the desired settings and then select the download tab. This will save a config.zip file to your computer.
Copy this file onto a blank FAT32 formatted memory stick.
Remove power to the MeteoBridge, insert the USB memory stick and reconnect power.
Wait for the Status light to turn solid green and connect to the MeteoBridge as normal.

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7 Liability Disclaimer

Carefully reading the manual is recommended. The manufacturer and supplier cannot accept any responsibility for any incorrect readings and any consequences that occur should an inaccurate reading take place. Any physical modifications or changes to the source code of the MeteoBridge will invalidate any warranty and also limit the extent of technical support.

This product is designed for personal use, and is not intended for the design, construction, maintenance, operation, control, or any other use in connection with high risk systems. We specifically disclaim any express or implied warranty of fitness for purpose in connection with high risk systems.

High Risk Systems means systems in environments requiring fail-safe performance in which the failure of the software could lead directly to death, personal injury, or severe physical or environmental damage. You agree that you will not use the MeteoBridge for any purpose in connection with High Risk Systems.

MeteoBridge is a Copyright of smartbedded UG (haftungsbeschränkt), all rights reserved.

The specifications of this product may change without prior notice. For planned upgrades please see www.meteobridge.com/wiki/index.php/Forum

Please visit www.MeteoBridge.com for online documentation which will give more detail on features and lately added functions

Davis Instruments Australia PTY LTD will not assume liability for incidental, consequential, punitive, or other similar damages associated with the operation or malfunction of this product.

8 Warranty Information

Davis Instruments Australia PTY LTD provides a 90 day limited warranty on this product against manufacturing defects in materials and workmanship.

This limited warranty begins on the date of purchase and is only valid for the original purchaser of this product. To initiate warranty service please contact Davis Instruments Australia with proof of purchase and MeteoBridge License number.

Any physical modifications or changes to the source code of the MeteoBridge will invalidate any warranty claim.

The warranty covers defects in material and workmanship with the following specified exceptions: (1) damage caused by accident, unreasonable use or neglect (lack of reasonable and necessary maintenance); (2) damage resulting from failure to follow instructions contained in your owner's manual; (3) damage resulting from the performance of repairs or alterations by someone other than Davis Instruments Australia; (4) units used for other than home use (5) applications and uses that this product was not intended.

This warranty covers only actual defects within the product itself, and does not cover the cost of installation or removal from a fixed installation, normal set-up or adjustments, claims based on misrepresentation by the seller or performance variations resulting from installation-related circumstances.

Appendix A: Setting a WLIP to Static

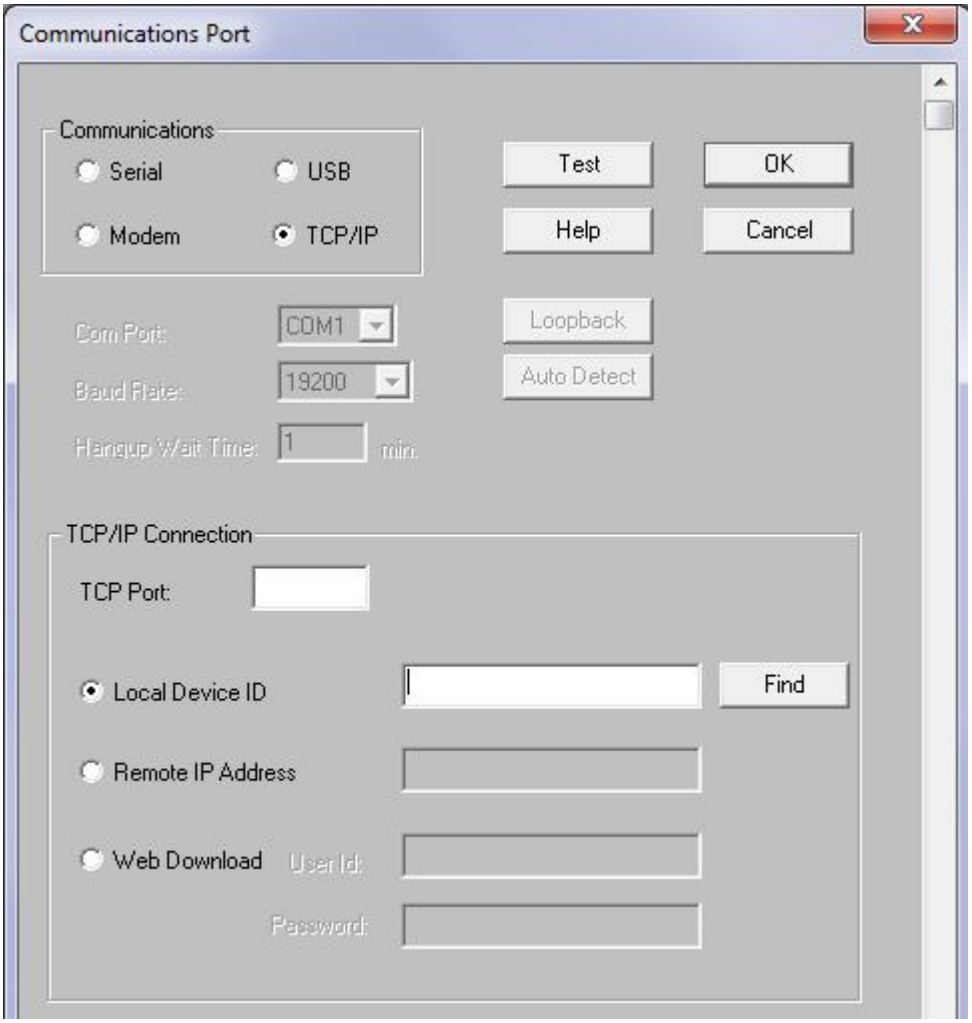
1. Connect your WLIP into your router and ensure the WLIPs green LED is on.
2. Connect your computer into the same router via Ethernet.

Note: whilst you can open the web dialogue over Wi-Fi Weatherlink may have trouble finding your data logger if not physically connected.

3. Open the Weatherlink Software supplied with the data logger.

4. Navigate to the Setup menu and select Communications Port

5. Select TCP/IP and Local Device ID then click find



The following window should open

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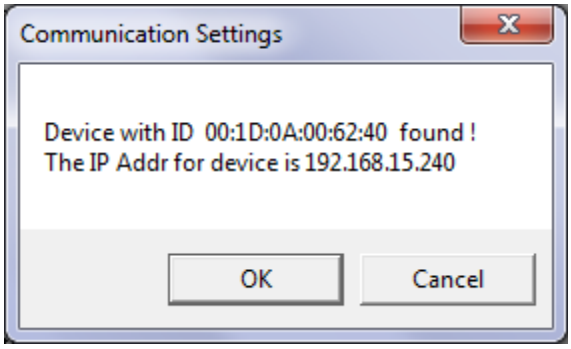
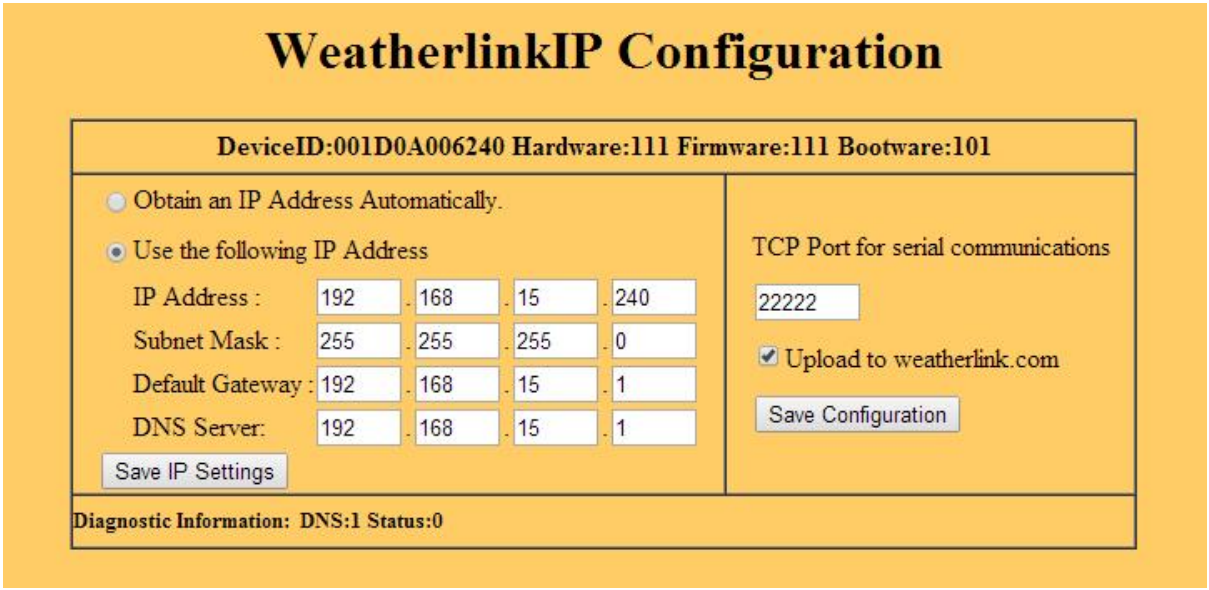


6. Write down the displayed IP address

7. Open an internet browser and enter the IP address to open the WLIP web interface



8. Select "Use the following IP Address"

At this point you can either set the dynamically assigned IP as static or enter the details of your preferred IP.

IMPORTANT: If you manually assign IP details ensure they are all correct before continuing. Entering incorrect information can make the Weatherlink IP un-findable

Make sure that the TCP port is set to "22222" and if you are using weatherlink.com the upload button is checked.

9. Write down your static IP address some where safe.

10. Click "Save Configuration" and then "Save IP Settings"

Your IP should now be set as a static IP

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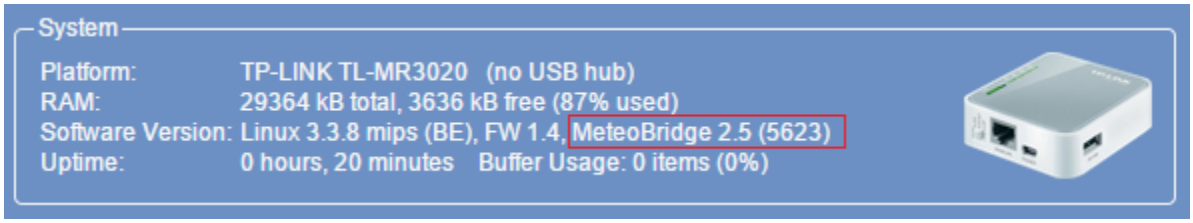
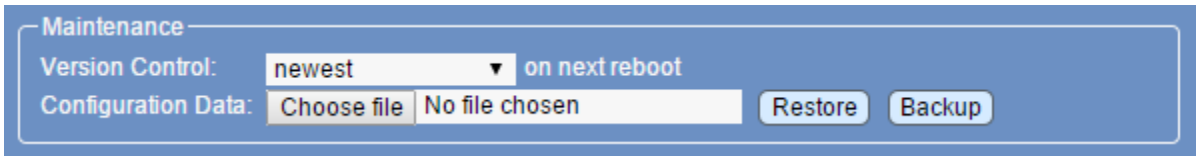
Appendix B: MeteoBridge for Wireless Weatherlink Communication

MeteoBridge can now be used in conjunction with Weatherlink on the PC, allowing both systems to run simultaneously.

1. Check MeteoBridge is running Version 2.5
   - Open the MeteoBridge Web interface
   - Go into the System tab
   - Check the Software Version is displaying MeteoBridge 2.5



   - If it is a showing a different version set version control to "newest"



   - Click Save and Apply, then click Reboot.
   - Once it's rebooted check the version is displaying 2.5

2. Setup Communications Port
   - Open Weatherlink
   - Goto Setup -> Communication Port

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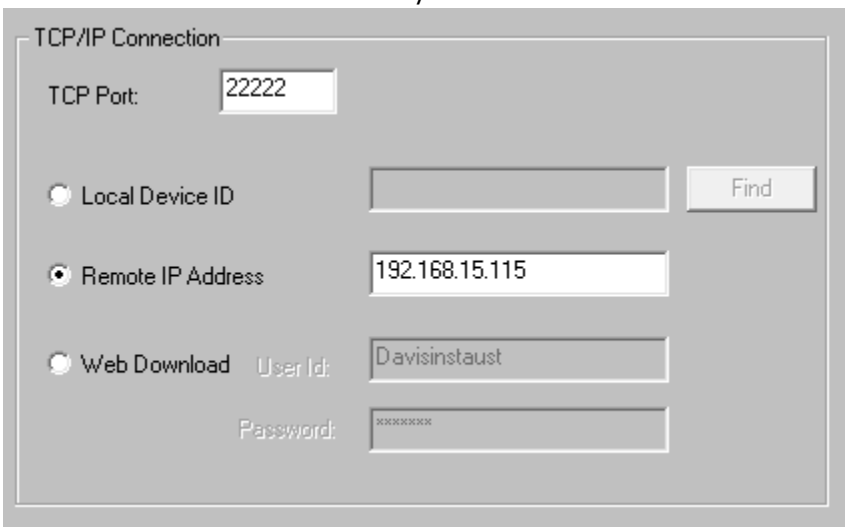
- Select communications as TCP/IP



- Ensure the TCP port is set to “22222”
- In Remote IP Address enter the IP address of your MeteoBridge.
- Click “TEST”, you may get a TCP/IP error. Try the “TEST” again until the message “a vantage station was found”

  Once the vantage station is found download the data to verify it is working.

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