

Please ensure you read this document along with the GreenBox & ZB Connection devices technical user manuals before removing the GreenBox from its packaging and powering it up.

**Important Note:** When the GreenBox has been powered up, do not remove power from the GreenBox unit at any time without properly shutting it down by selecting "Shutdown" from the Administrator menu. As this could corrupt data and make the system unusable.

### Default Settings

- IP Address:** 192.168.1.100
- Port:** 8092
- Administrator Username:** admin
- Administrator Password:** password

**Important Note:** Ensure you have the information to a valid and accessible SMTP Server; if authentication is required then you should have a valid username and password for the SMTP server, to ensure GreenBox can send out emails. Also ensure that GreenBox has access to the internet to allow it to synchronise its date & time and communicate via emails.

### Network Settings

GreenBox provides a user interface via the HTTP protocol and so is only accessible via a browser from a PC or laptop. The first step is to set up GreenBox to conform to your LAN settings so that it is accessible from within your LAN:

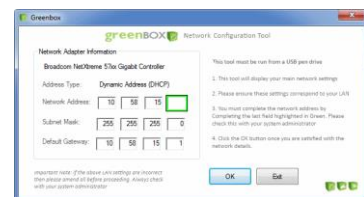
#### Accessing GreenBox for the first time

There is more than one way to access your GreenBox for the first time:

#### USB stick to change the IP address of the Greenbox.

Insert a USB stick on your PC/laptop that runs on Windows OS. From the Windows Explorer, navigate to the USB drive. Double click on the greenboxUtility.exe application to display the following Network Configuration Tool dialog.

**Important Note** Download IP Configuration Utility - greenboxUtility.exe from the ZB-Connection Technical Centre



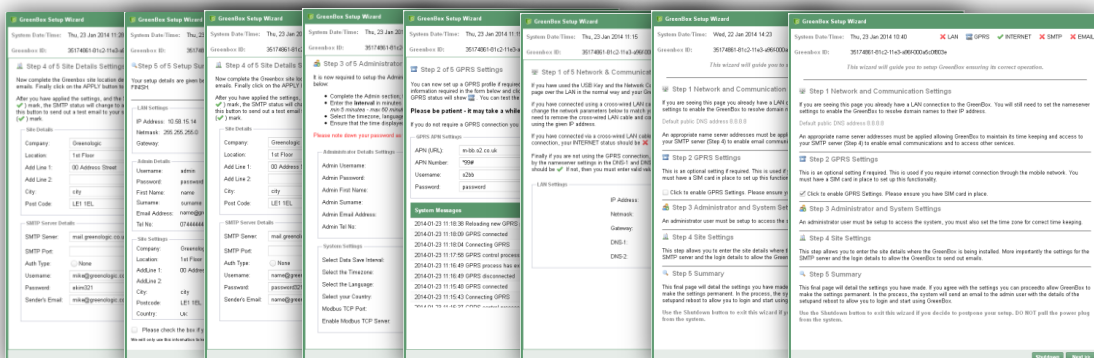
It will display the LAN settings from your PC/Laptop and you need to complete the Network Address field's last box (in green). Ensure that this number is unique for your network. Click on OK. This will generate a special file on the USB stick. Now safely eject the USB stick from your PC/Laptop. Ensure that the Greenbox is NOT powered up, insert the USB stick in the USB slot and apply power to the Greenbox. Wait for 2-3 minutes and then open a Browser on your PC/Laptop and enter the URL with the new IP Address you entered in the Dialog above. Remember to also enter the port 8092 in the URL. You should now see the web interface which will be the setup wizard (see below).

#### Direct Connection to GreenBox

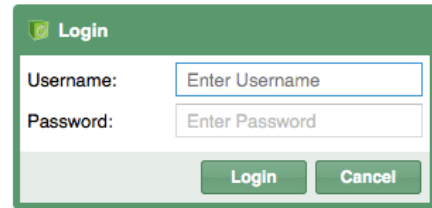
Connect to the GreenBox from your PC/Laptop using a Cross-wired Ethernet cable and change your PC/Laptop's static IP address to say 192.168.1.10. Apply power to Greenbox and wait for a couple of minutes. You may now enter the URL <http://192.168.1.100:8092> and access the Web-interface which will be the setup wizard. (see below)

#### Using the default IP Settings

Connect the GreenBox to your LAN and change the IP Address of your PC/Laptop to a static one of say 192.168.1.10. Apply power to GreenBox and wait for a couple of minutes. You may now enter the URL <http://192.168.1.100:8092> and access the Web-interface which will be the setup wizard. (See below)



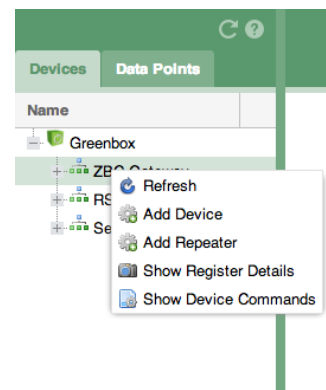
1. As soon as you access the IP address the first page that you can see is the GreenBox Wizard. This Wizard will guide you to setup GreenBox ensuring its correct operation. If you feel at any point of the setup to cancel or postpone the setup, you can do so by clicking on the shutdown button. **Record the administrator password in a safe place.** Recovering a lost administrator password is not a simple process.
2. When you complete the setup from the wizard then the system will reboot applying the new settings; it could take up to 2 minutes for the GreenBox unit to boot up for the first time.
3. Load a web browser on your PC, and in the address bar, type "http:// [GreenBox IP Address]:8092" (be sure to include the "http://") and press "Enter".
4. You should see the GreenBox login screen. Mozilla Firefox is the recommended browser required to access the GreenBox unit. If you do not have it installed, please download this free browser first.
5. If you still do not see a login screen after 5 minutes then check your network settings and the address in the browsers address bar.
6. Log in to the GreenBox unit with the username and password you have set on the Wizard.
7. When loading the system for the first time with a new gateway it can take up to 3 minutes for the Gateway to be setup and appear as connected on the interface.
8. You are now set to add devices and data points and build your ZB Connection network before initiating the remote services (See technical user manual for more information).



Getting Started

Adding Device

1. Ensure the device to be joined is powered up and ready to be added to the GreenBox. If the device required hard addressing then ensure the address which is set is unique. Please refer to the Add Device/Sensor section in the User Manual. Also refer to the Device user guides.
2. From the "Devices" tab on the left pane, right click on the "Gateway", click "Add Device/Sensor" button.
3. The Add device dialogue appears, select the appropriate device product code from the drop down list. Enter the name and its unique Modbus address. Click the "Submit" button and wait until the device appears in the list. You may need to stimulate the ZB-Connection device (See Technical User guide and device user guides for more details)

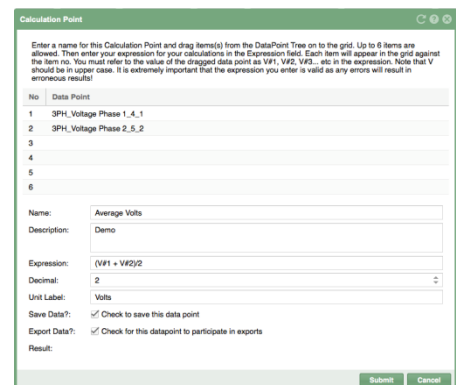


Adding a Data Point

1. Click on a device node on the Devices tree or occupancy map, the ModBus register details of the device will appear. From the details screen of the device, right click on a register row of the desired point you wish to add as a data point.
2. Select "Add Data Points" from the context menu.
3. A dialog will be displayed. Enter the details for the new data point and click the "Submit" button. The data point will now appear in the "Data Points" tab under the "Gateway" folder.

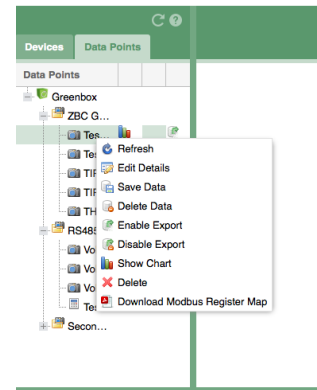
5	Light Rms	The average light reading (rms) expressed in Lux
6	Temperature	Temperature (in tenths of a centigrade)
7	Light L	The raw light reading level in Lux
8	Humidity	Humidity measured in % Relative

4. Creating a Calculation point – whilst in the "Data Points" tab, right click on the Device folder and select "Add Calculation Point". A Calculation Point dialog will be displayed. With your mouse, select a data point from the Data Points tree and drag it into the first empty row in the grid on the Calculation Point dialog and release the mouse. You may repeat this for other data points if required (up to 6 data points allowed). E.g. To calculate average temperature. Complete the rest of the fields in the dialogue and pay attention to the "Expression" field. Here you will enter the calculation expression comprising of the dragged data points. The first one is referred to "V#1", the second as "V#2" and so on. If for example you dragged 6 temperature points and require an average value then the expression would be "(V#1 + V#2 + V#3 + V#4 + V#5 + V#6) / 6". (Please note that the 'V' in the expression is upper case). When you have completed the fields, click the "Submit" button. The Calculation point will now appear in the Points tab under the devices folder. **You must ensure that the expression is valid; otherwise it will produce erroneous results.** On the calculation dialog click on the refresh icon to see the result before you use the point any further. Data points are registers elevated directly from the device, Calculation points comprise of Data point(s) and expressions to change the value. Both points can be saved and logged in the GreenBox. (See Technical User guide for more details)



### Saving Data

1. Right click on the new data point within the Data Points Tree; from the context menu select "Save Data".
2. A Chart icon should appear against the data point; this indicates that data will be saved at the set intervals.
3. Right click on the data point which you have saved the data for and select "Show Chart" to display data and to download data using the export feature. Please note that you should allow at least 1-2 hours for the chart to appear and display any data! (See Technical User guide for more details)



### Important Note:

**Data Point Naming Convention** – when assigning a name for a data/calculation point ensure it is meaningful succinct and unique to differentiate between points. Use the description section to add more details.

**Saving Data** – Please ensure you are only saving data points which you require, do not save data for a point if it is not necessary.

**This quick guide illustrates how to quickly get setup to access your GreenBox; and also adding ZB-Connection devices. For more technical information on how to use the additional functionality of the GreenBox please review the technical user guide available online.**


**Technical Centre | Online User Guide, Technical Manuals & Downloads**

<http://www.zb-connection.co.uk/technical-centre>

Username **greenbox@4-noks.com**

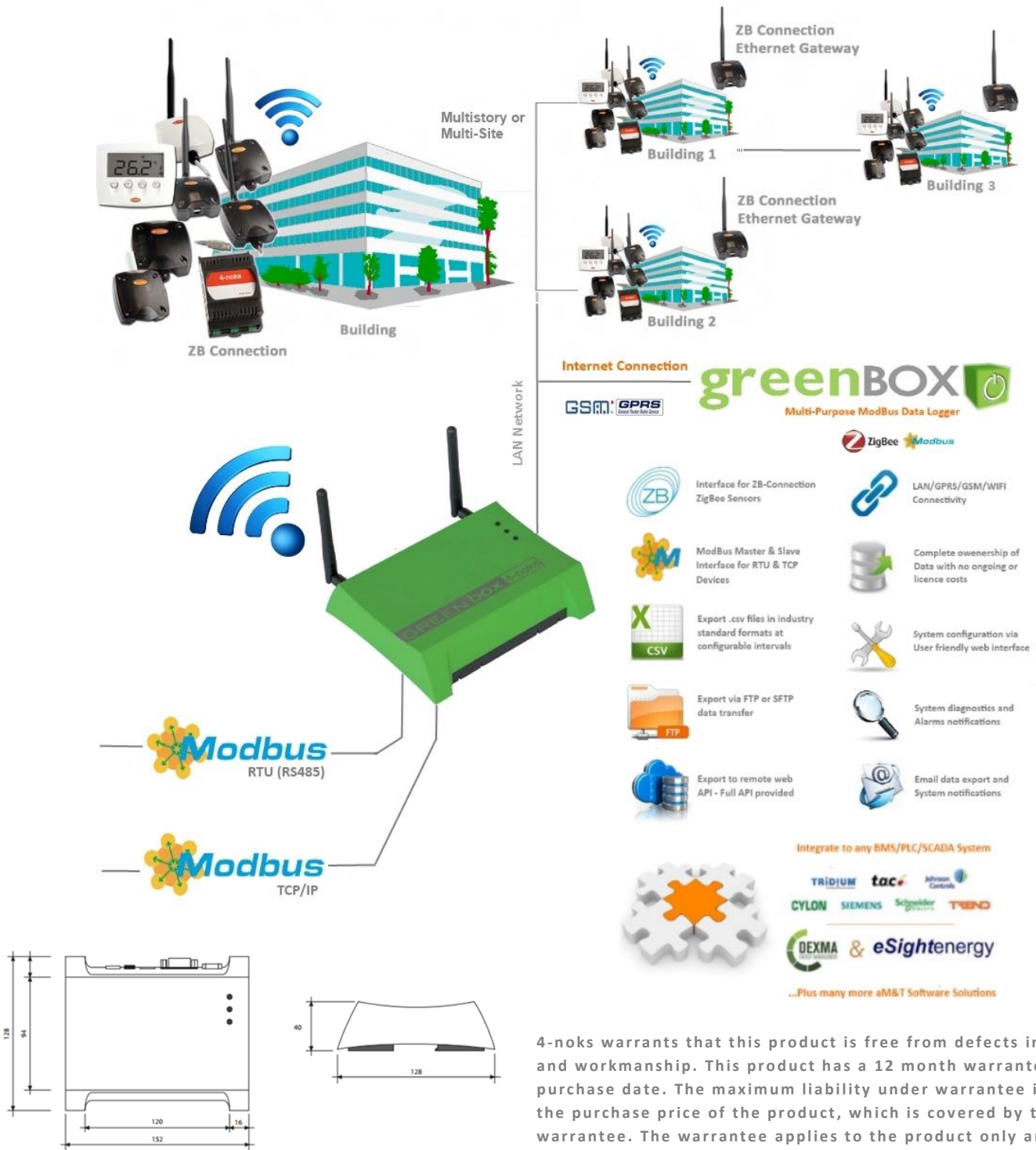
Password **greenbox123**

**Support Queries or Bug Reporting**– [support@greenologic.co.uk](mailto:support@greenologic.co.uk)

GreenBox recommends you use  mozilla **Firefox**

The GreenBox is ideal for small, medium and large buildings or processes that require discreet energy management platform in a building that can serve the data to any dashboard/reporting tool or a BMS/PLC/SCADA. GreenBox co-ordinates, manages and monitors the ZB-Connection Network. The web-based user friendly interface allows for simple setup and configuration of the wireless sensors. This means solutions can be rapidly installed, without major disruption to the site of its occupants.

GreenBox provides complete data access via Ethernet or Cellular Communications. Key features include configuration and set-up of ZB-Connection sensors, elevation of data points, calculations, historical trending, sensor diagnostics, and export data via external webservice calls, FTP, CSV and Modbus RTU RS485 & TCP/IP. GreenBox can also integrate wired ModBus slave devices allowing you to create solutions that meet the clients requirements cost effectively.



4-noks warrants that this product is free from defects in material and workmanship. This product has a 12 month warrantee from purchase date. The maximum liability under warrantee is limited to the purchase price of the product, which is covered by the warrantee. The warrantee applies to the product only and does not cover another software or hardware which may be included with your purchase of the product.