Meteobridge NANO - Manual

Thank you for having purchased a Meteobridge NANO, which is a powerful addon to your Davis Instruments® Vantage PRO2™ and Vue™. The NANO simply connects to the expansion port at the back of the console and when you close the cover again it is completely invisible. The NANO provides you basically with all features of the regular Meteobridges, it just comes in a more tiny package and it does not have a wired LAN port. It connects to your network via WiFi only. We hope you will enjoy the simplicity and functional power of the NANO. When you get stuck with any issue setting it up or operating it, please reach out for help at the Meteobridge forum (http://forum.meteobridge.com).

This instruction manual mainly focusses on initial setup of the unit. To get a more deep inside in all the functions it provides, please browse to „www.meteobridge.com", where operation of all Meteobridge variants is explained in much more detail. As we are still improving the software of itt, you will also read there about what we are developing right now and about bugs we have fixed. With each reboot your unit is updated with most recent software (unless you tell your NANO to stick to a certain application version). Automatic updates on reboot take the burden from you to mess around with installing updates yourself.
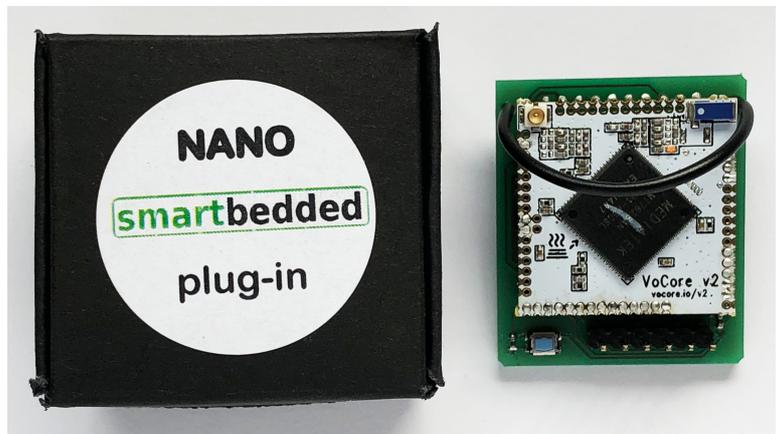
Unboxing

When you open the Meteobridge PRO package you find these items:
* this instruction manual
* Meteobridge NANO (in a tiny black cardboard box)

Connecting

1. Before powering up the unit, please setup your console correctly. This includes setting of date & time, configuration of transmitter channels, transmitter station type, rain bucket size, station altitude. Please check that the console is receiving data from the sensors. If data for all sensors is coming in fine, you are ready for step 2.

2. Remove power from the console. Open back cover of the console that hides batteries and expansion slot. Please also remove batteries if any.

3. Insert Meteobridge NANO module into the expansion slot. Do with firm but not with brute force. When it does not slide in by a firm push, the connector is not positioned correctly. Applying more force can damage the port. Get the NANO out and try again. Good news is, that you only
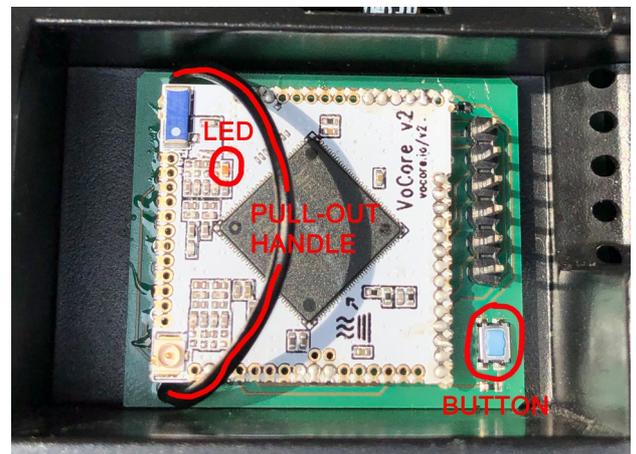
need to do this once.

4. Put batteries back in (if you are using any) but leave cover open for a while as the NANO has a LED that signals some information for setup you might need in the next steps. Connect the power supply to mains and plug-in its barrel connector to the console.

5. Now you should hear the typical start-up beeps from the console. Wait 2 minutes for the Meteobridge NANO to boot.

Initial Setup

1. Connect your WiFi computing device of choice with the WiFi network "meteobridge-…..". Connection is WPA2PSK AES encoded and uses the encryption key "meteobridge".

2. When your WiFi device is connected, please start the browser on that device and browse to http://192.168.169.1. You will be asked for a user name and password. Please enter "meteobridge" for both. Now the NANO is scanning your WiFi network, therefore it will take a couple of seconds until the NANO's network administration page will show up.

3. Please select the WiFi Network the NANO should connect to from the "Known SSIDs" pull-down. Select WLAN region your are in, used encryption (will mostly be WPA2-PSK) and enter correct passphrase for your WiFi. Having done all this, you can test if the NANO does connect correctly by pressing "Save and Test" button. Now WiFi settings will be applied and an automated check if it connects correctly will be done. Please wait a minute to have that completed. If it worked fine, you will see messages as below. If not something with your settings did not match your WiFi, please recheck and try again with correct settings.

4. Congratulations, the NANO is now part of your network. Please note the NANO's IP as you will need it to login from your WiFi network later on. Press "Save and Apply and Reboot" to leave network admin access and to restart the NANO in regular operation.

5. When you watch the LED on the NANO module you will see it blinking during boot process. After a while it will start fast flashing which indicates that it tries to connect to the Internet. When it finally changes to steady on, the NANO is connected to the Internet and fully operational. You can close the cover of the console now.
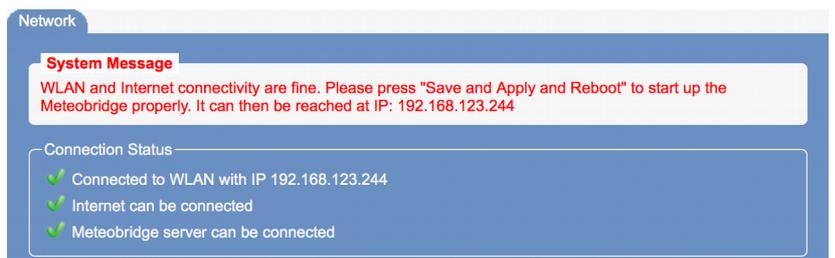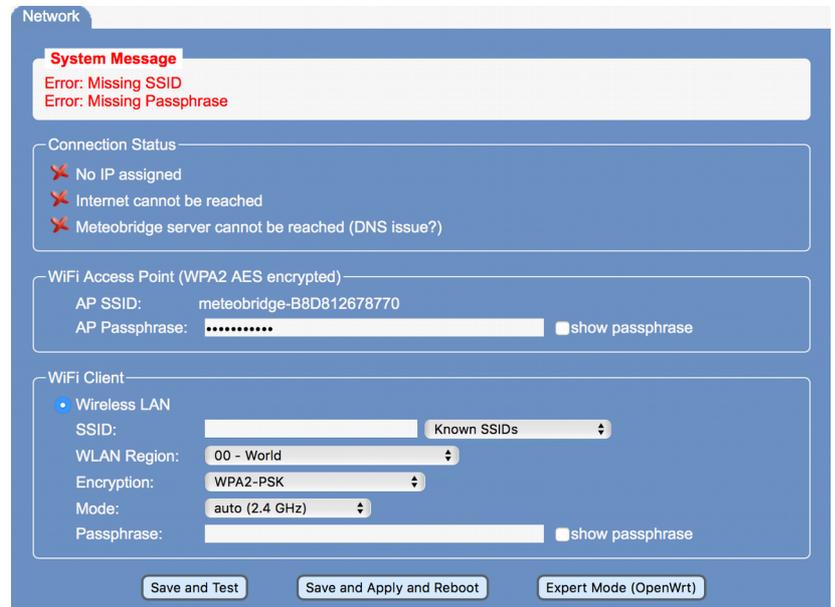
First Login

Each time you power up the console the a plugged-in NANO will connect to the Internet, load the latests application stack and will start operation (like uploading to Internet weather networks, etc). You can reach the NANO at the IP you noted during initial setup. We recommend that you tell your router to give the NANO a fixed IP. Most routers allow to give a device with a known MAC a fixed IP in the LAN. When you cannot reach the NANO at the IP you remembered, please check first if the NANO is operating fine.

To check this just remove the cover from the back of the console. When LED is steady on the NANO is operating fine and you just need to find out the correct IP. You can find out the IP by browsing to http://magicip.meteobridge.com. If it is blinking fast the NANO cannot connect to the Internet/WLAN and you need to repeat the "initial Setup" steps.

Reset

When NANO is stuck at blinking fast or LED is steady on you can do some reset operations by pressing the small blue button on the NANO board next to the pin header. Which operation is triggered by pressing the button is determined by how long you keep the button pressed. When pressing down the button the LED will go off and will then start blinking slowly. You can now select a special reset operation by keeping the button pressed until a specific number of blinks is done. These are the reset options to choose from:

- Release button **before first blink**: NANO will indicate its IP by blink sequences. Please read www.meteobridge.com "getting started" section to learn how to read the blinks.

- Release button **at first blink**: Resets password of WiFi access point that the NANO provides for initial login. Password is set to "meteobridge" und NANO is rebooted.

- Release button **at second blink**: Resets HTTP password to "meteobridge" and reboots.

- Release button **at fifth blink**: Reset NANO to factory defaults (all settings are lost) and reboot.

Hardware Features

- Size: 35mm x 30mm x 20mm (width x height x depth)
- weight: 10g
- operating temperatures: 0 - 50°C, non-condensing
- power consumption: max 300 mA / 4.2 V
- WiFi 2.4 Ghz, 802.11g/n,
- reset button
- VoCore2 CPU board
  - signal LED
  - 16 MB flash / 128 MB RAM
  - Mediatek 7628 AN SOC
  - internal chip antenna