



PowerWatch 2G

Support Information

Forward

Thank you for choosing our product. The OLD DOG ELECTRONICS PowerWatch 2G is designed, and manufactured in South Africa to provide many years of reliable use, if installed and maintained correctly. The guidelines provided in this manual will assist you with the operation and maintenance of your unit. More information on our products and general information are available on our website at: <http://www.olddogelectronics.co.za>

Fitting the Antenna

The device is shipped without its antenna installed. You will see a gold screw connector for the antenna on the side of the case. Screw the antenna onto the connector with the antenna's orientation vertical. Tightening finger tight is sufficient to hold it in place.

Charging the PowerWatch 2G

Whilst the sim card is being prepared for use. We recommend the units batteries are charged for at least an hour. Ensure the rocker switch is in the off position.. The "O" side must be depressed. Connect the USB cable to unit and the charger. There are no LED's visible from the outside of the case showing the charging status.

The Sim Card

Prior to purchasing the device, we trust you verified a 2G GSM network is available where the PowerWatch 2G will be used. If you are using a new sim card, it is highly recommended to insert the card in a phone to obtain its number, verify it connects to 2G, and to load air time. The PowerWatch 2G isn't able to report the sim card airtime balance, It's recommended the network you choose monitoring the airtime available via an app or internet.

When the sim card is functional on your network, the phone can be switched off, and the sim card inserted into PowerWatch 2G.

Removing The Case Top

Unscrew the four screws on the top of the case; the top will lift off freely.

If the charger is still connected and powered, you will see either a blue or green glow from under the battery holders close to the USB connector. Blue indicates the batteries are charging, green indicates the batteries are charged. At the opposite side of the battery holders, a red glow should be visible. This shows the power supply is ready to power the unit.

Inserting the sim card

The drawing on the right shows the position of the GSM module with the sim card partly inserted in its correct orientation. You'll see the GSM module on the opposite side of the case to the antenna connector.

Gently slide the sim card into the slot and push down until it latches in position.

The sim card will be almost level to the top of the pcb.

The top of the enclosure can be left off whilst powering it up for the first time just in case something has moved during shipping.

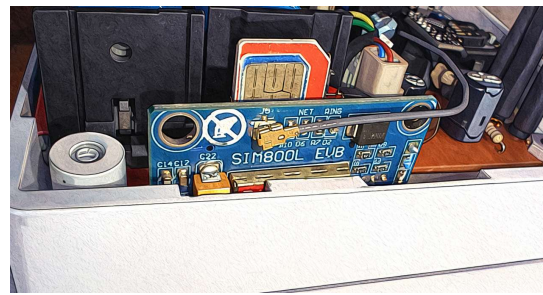
Powering Up

With the sim card inserted and the batteries charged, you can now power-up the device.

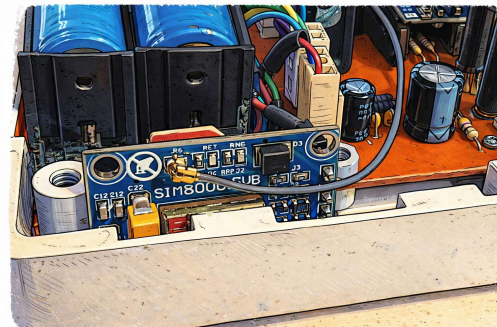
The case top doesn't need to be in place when powering up for the first time.

The modem card which contains the sim card has two red LED's. The right hand LED next to a black component will be on, steady. To its left is another red LED. This is the network LED. As the module powers up, it flashes approximately once per 1sec. This indicates the module is searching for its network. After approximately 10sec (or less), this LED will flash slower, approximately once every 3sec. This indicates the modem has connected to its network. If the LED continues to flash once per sec, power the device off, and check the sim card is seated correctly. Should the problem persist, we

Sim Card Being Inserted



Sim Card Inserted



recommend inserting the sim card into a 2G phone and confirm it connects to its network. If a 2G phone isn't available, use a 3G or LTE phone and set the sim to connect only with a 2G network. Should the problem persist, confirm with your operator 2G is available in your area and the sim card is 2G compatible. If all else fails, contact us.

Diagnostic LED's

The cover has three LED's at the top right. Their use is as follows:

RED: On shows the modem and microprocessor has its 5v power

AMBER: On shows the module is powered from the USB charger. This is used to signal a power failure to the electronics. **VERY IMPORTANT:** The AC ON LED is only active after the modem has connected to its network and the electronics internal diagnostics have all passed. This can take 30-40sec.

RED / GREEN: This is the COMMS LED. As the device powers up, the LED is OFF. After the internal self, the device checks its network connection, if no errors exist, the LED is green, Any errors are indicated by the LED flashing RED between 1-5 times.

NOTE: Once the unit is working, the GSM comms are checked every minute.

RED LED Flashes

- 1 No response from SIM800 module, check wiring and connectors
- 2 Simcard problem, Check it is installed correctly and valid
- 3 Not connected to a network, Check simcard is valid, antenna is connected
- 4 Signal strength <10%. Could be your location. Check Simcard in a 2G phone. Could also be antenna connection or cable.
- 5 Messages stored on the simcard, the program should delete these.

Should the LED initially flash RED, then switch to GREEN, This is not an error.

Setting The Default Phone Number

The only setting in a new device is the default phone number. This is the number sms's are sent to when the power changes state. The default number is set by sending an sms in the following format : Assuming the number required is 082-555-1234, it is important the number is set in international format.

The command SMS will be *+27825551234#. When the device receives the SMS, and validates the number. The new number is stored. It then replies with “Number updated to ‘your new number’ ” in international format.

With the default number set, When the device powers up and the internal diagnostics have passed, it sends this message to its default number, “ PowerWatch 2G Has Powered Up”

Power Status Query

Once the device has powered up, the state of its input can be queried at any time by sending the command Pwr? . The command isn't case sensitive so PWR? Or pwr? are valid commands. The device replies to the command source number with “Power is ON” or Power is OFF”. Any phone number can query the power status, and works if queried with international numbers.

Power State Reporting

When the power changes state, the PowerWatch 2G will send an SMS after the new state has been stable for 60sec.

