

PROGRAMMING

There are 5 programming commands:

1) Phonebook

This command will set up to four of the phone book entries on the Metron.

Format

```
[password]. 1. [phonenumber1]. [phonenumber2].  
[phonenumber3]. [phonenumber4].
```

Example

```
o l i . 1. +447712345671. +447712345672. +4477123456  
73. +447712345674.
```

Must include + and country code (i.e. +44 for the UK)

2) Configuration of the system settings

This command will configure the system settings on the Metron.

Format

```
[password]. 2. [unit name]. [transmit interval].  
[wakeup interval]. [temperature enabled].  
[formatting].
```

Example

```
o l i . 2. pump_house. 1440. 720. 1. 1.
```

Transmit and wakeup interval are give in minutes. If temperature enabled set to 0 then no temperature value sent in texts, if 1 then it is. If formatting = 0 then format will suit being sent to mobile phones, if 1 then will suit being sent to Sigma software, if 2 then will suit being sent to Gateway. If Sigma or Gateway formatting chosen then only phonebook #1 will be used and the rest will be ignored.

3) Configure the inputs

Format

```
[password]. 3. [input number]. [input name].  
[settle time]. [supply type]. [input type]. [low  
value]. [high value]. [lolol level]. [lol level].  
[hil level]. [hihil level]. [hysteresis]. [phone1  
enable]. [phone2 enable]. [phone3 enable].  
[phone4 enable].
```

Example text message

```
o l i . 3. 1. level_1. 1. 1. 0. 0. 1000. 0. 0. 0. 100. 5. 1. 1.  
1. 1.
```

Input number to be 1, 2, 3 or 4. Input name to no more than 20 digits (no spaces allowed)

Settle time is in seconds – how long from power up for the sensor to reach a stable reading. Supply type 0 = 3.6 volts, 1 = 21 volts. Input type 0 = 0-10 volts, 1 = 4-20mA.

Low value is what you want the Metron to read when the low input is applied (i.e. at 0 volts or 4mA). High value is what you want the Metron to read when the high value is applied (i.e. at 10 volts or 20mA). Both must be between -32768 and 32767 and cannot be the same.

Lolol level, lol level, hil level and hihil level are alarm thresholds, hi are rising alarms, lo are falling alarms. Must lie between High and Low scaling values. 0 = disabled. Hysteresis is a value between 0 and 99 and is applied the the alarm thresholds.

Phone1 to phone4 enabled are to be 0 or 1, 0 = do not alarm to this number, 1 = alarm to this number. If 1 is sent then the phonebook must contain a valid number.

You have to repeat for each input you are using.

4) Change the password

Format

```
[password]. 4. [new password].
```

Example

```
o l i . 4. pow.
```

New password to be 3 digits in length

5) Reset the unit (clear the configuration)

This command will reset all settings on the Metron, including the system password (returns to the default password)

Format

```
[password]. 5.
```

Example

```
o l i . 5.
```

If you forget your password contact Powelextrics

Notes on volt free contacts as alarms...

Set the input as 0-10 volts and wire your volt free contact between +V and IN. Set the supply type as 3.6 volts. Set the low value as 0, the high value as 29, and then set the hi level threshold to 5 (assuming you have a normally open, close on alarm input. If you have normally closed, open on alarm input then set the lolol level threshold to 5). The volt free contact will switch the supply voltage to the input and the Metron will alarm out on a threshold. Set the wakup interval to 65535 so the Metron continually applies 3.6 volts to +V.

Battery life

The Metron draws 0.055mA when the display, the GSM module and the sensors are powered down. Each text message the unit sends takes approx 0.000875AH. The battery capacity is 14.5AH.

IN4MA METRON QUICK START GUIDE



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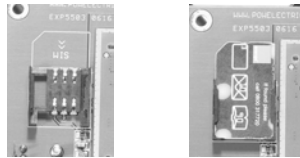
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METRON QUICK START GUIDE

Thank you for choosing the Metron. Please refer to full manual for further information.

Remove packaging

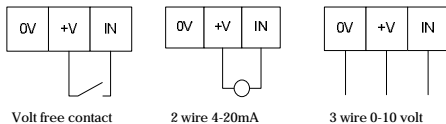
Insert sim card by first of removing the 4 screws and turning the circuit board over.



Replace the circuit board and connect the sensors / inputs. There are 4 inputs, each can be set to 0-10 volts or 4-20mA using the DIP



switches. If you are using digital signals (on/off) set to 0-10 volts.



Connect the battery (black cable to the left)



The METRON is a low power device. The GSM module is normally powered down and the Metron controls power to the sensors as required.

The screen will normally be blank. Wake the unit up by pressing the centre button once.



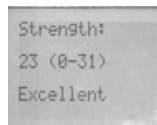
The three buttons represent.



Check the signal strength by pressing Enter and then Scroll Down to Check Signal. Then press Enter again.



The Metron will show Booting Modem while it powers up the the GSM module and waits for it to connect to the network. Keep your eye on the screen to make sure you see Pass by Network as it goes through its sequence (fail means there is an issue with the sim card)



If the signal is less than 12 you'll need to either move the unit to somewhere where the signal is better or use an external antenna. When you've finished press and hold Enter to Escape from the test.

The Metron is programmed by sending it text messages. You can do this from a mobile phone or by connecting a GSM modem to a computer and using the Metron configuration tool (software package available from Powelectrics).

When you are ready to send the messages to the Metron got to System and then Get Config and the modem will power up and wait for messages.



When the Metron receives messages you will see it process them.

See over for programming instructions.

Once you've programmed the device you can navigate round the menu system to see how it is configured. You can go into Inputs, select the Input you want to check and select Read Now to get a live reading. You can exit by pressing and holding the middle button.

The Metron will send text messages only. These can be to a mobile phone, to the Gateway (a data hosting service we offer where data is accessed over the internet), or from Sigma (a PC based software package used primarily for alarm handling)



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