



## ***GSM COMMUNICATOR***



## ***SMS SETUP COMMANDS***

# Revision History

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Rev 1.9.....	2014-11-11
Rev 1.10.....	2014-12-09
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Rev 2.2.....	2015-04-02
Rev 2.3.....	2015-04-29

## INTRODUCTION

This document serves as an appendix to the GSM Communicator User Manual and it is advised that the user reviews this material before issuing SMS commands to the device.

All settings on the device may be altered either via SMS or via USB, using the *Sentry GSM PC Management Platform* and dongle.

# APPENDIX A: SMS COMMANDS

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**Instructions:** Type in \*\* followed by the setting number, followed by \* and send the SMS to the cell number of the unit that you wish to address. **Note:** Your cell number must be stored as an Authorised User (see 3.2.2 in User Manual) to be allowed to change settings.

E.g. \*\*2\*12345

To change multiple settings at once, simply string the settings together with **no space** in between. The device will recognise a maximum of 150 characters per SMS.

E.g. \*\*2\*12345\*\*3\*54321\*\*6\*100

Although multiple numerical code ("\*\*" prefix) codes may be sent at once, only one text command (E.g. BALANCE) may be sent per SMS.

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**Command:** \*\*1\*<x>

**Name:** **ACTIVE SIM**

**Description:** Selects which SIM card will be accessed

**Accepted Parameters:** SIM 1 = 1  
SIM 2 = 2

**Example:** \*\*1\*1

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**Command:** \*\*2\*<x>

**Name:** **SIM 1 PIN**

**Description:** Stores pin number for SIM 1

**Accepted Parameters:** Up to 6 digits

**Example:** \*\*2\*654321

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**Command:** \*\*3\*<x>

**Name:** **SIM 2 PIN**

**Description:** Stores pin number for SIM 2

**Accepted Parameters:** Up to 6 digits

**Example:** \*\*3\*654321

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**Command:** \*\*4\*<x>

**Name:** **INPUT 1 ACTIVE**

**Description:** Sets input 1 to trigger on active-high or active-low state

**Accepted Parameters:** Active-high = 1  
Active-low = 0

**Example:** \*\*4\*0

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**Command:** \*\*5\*<x>

**Name:** **INPUT 2 ACTIVE**

**Description:** Sets input 2 to trigger on active-high or active-low state

**Accepted Parameters:** Active-high = 1  
Active-low = 0

**Example:** \*\*5\*1

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**Command:** \*\*6\*<x>

**Name:** **INPUT 1 ON DELAY**

**Description:** The time for which the input state must be altered before a trigger event will be initiated

**Accepted Parameters:** 1 to 255  
Stores in increments of 10ms e.g. 11 = 110ms

**Example:** \*\*6\*15

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**Command:** \*\*7\*<x>

**Name:** **INPUT 2 ON DELAY**

**Description:** The time for which the input state must be altered before a trigger event will be initiated

**Accepted Parameters:** 1 to 255  
Stores in increments of 10ms e.g. 11 = 110ms

**Example:** \*\*7\*15

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**Command:** \*\*8\*<x>

**Name:** **INPUT 1 ALERT**

**Description:** Sets whether or not a GPRS/SMS alert is sent when the input is triggered

**Accepted Parameters:** Alert sent = 1  
Alert not sent = 0

**Example:** \*\*8\*1

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**Command:** \*\*9\*<x>

**Name:** **INPUT 2 ALERT**

**Description:** Sets whether or not a GPRS/SMS alert is sent when the input is triggered

**Accepted Parameters:** Alert sent = 1  
Alert not sent = 0

**Example:** \*\*9\*0

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**Command:** \*\*13\*<x>

**Name:** **REPORT DESTINATION 1**

**Description:** Destination for all outgoing SMS reports and alerts. Number must include the international dialling prefix  
E.g. 27825554321

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*13\*27827910856

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**Command:** \*\*14\*<x>

**Name:** **REPORT DESTINATION 2**

**Description:** Destination for all outgoing SMS reports and alerts. Number must include the international dialling prefix  
E.g. 27825554321

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*14\*27827910856

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**Command:** \*\*15\*<x>

**Name:** **REPORT DESTINATION 3**

**Description:** Destination for all outgoing SMS reports and alerts. Number must include the international dialling prefix  
E.g. 27825554321

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*15\*27827910856

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**Command:** \*\*17\*<x>

**Name:** **SMS/GPRS MODE**

**Description:** Sets the communication mode of the device

**Accepted Parameters:** GPRS with SMS Fail-over = 0  
GPRS without SMS Fail-over = 1  
SMS Only = 2

**Example:** \*\*17\*0

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**Command:** \*\*18\*<x>

**Name:** **AUTHORISED NUMBER 1**

**Description:** Sets the cell number of a master user that has full security access to the unit. Number must include the international dialling prefix e.g. 27825554321

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*18\*27827910856

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**Command:** \*\*19\*<x>

**Name:** **AUTHORISED NUMBER 2**

**Description:** Sets the cell number of a master user that has full security access to the unit. Number must include the international dialling prefix e.g. 27825554321

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*19\*27827910856

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**Command:** \*\*20\*<x>

**Name:** **SMS TO SSMI**

**Description:** Enables/disables the sending of a SMS to the SSMI server when the unit is in SMS mode. Alerts will be sent to all Report Destinations and an additional SMS will be sent to the SSMI server

**Accepted Parameters:** SMS to SSMI disabled = 0  
SMS to SSMI enabled = 1

**Example:** \*\*20\*1

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**Command:** \*\*21\*<x>

**Name:** **CREDIT MODE**

**Description:** Activates/de-activates Credit Mode. When set to pre-paid or post-paid, the device will check credit values when input 2 is activated and reproduce the pulse on the digital output port (subject to settings on respective ports). In pre-paid mode, the output pulse will only be reproduced if there is a positive credit amount on the device. When read, the current coin count, credit balance and last user action will be displayed

**Accepted Parameters:** Credit Mode Inactive = 0  
Credit Mode Pre-paid = 1  
Credit Mode Post-paid = 2

**Example:** \*\*21\*1

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**Command:** \*\*22\*<x>

**Name:** **LOW CREDIT ALERT**

**Description:** Activates/de-activates Low Credit Alert. When activated, the device will send an alert to the designated report destinations when a low credit value is reached. (See \*\*23\*)

**Accepted Parameters:** Low Credit Alert inactive = 0  
Low Credit Alert active = 1

**Example:** \*\*22\*1

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**Command:** \*\*23\*<x>

**Name:** **LOW CREDIT VALUE**

**Description:** Sets the low threshold value of available credits that will trigger a Low Credit Alert to the user.

**Accepted Parameters:** 1 to 65000

**Example:** \*\*23\*150

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**Command:** \*\*24\*<x>

**Name:** **ADD CREDITS**

**Description:** Adds <x> number of credits to the local account on the device

**Accepted Parameters:** 1 to 65000

**Example:** \*\*24\*1500

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**Command:** \*\*25\*<x>

**Name:** **REMOVE CREDITS**

**Description:** Deletes <x> number of credits from the local account on the device

**Accepted Parameters:** 1 to 65000

**Example:** \*\*25\*1500

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**Command:** \*\*26\*0

**Name:** **CLEAR CREDITS**

**Description:** Deletes all credits from the local account on the device

**Accepted Parameters:** N/A

**Example:** \*\*26\*0

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**Command:** \*\*27\*0

**Name:** **CLEAR COIN COUNT**

**Description:** Clears the coin counter value (sets to 0)

**Accepted Parameters:** N/A

**Example:** \*\*27\*0

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**Command:** \*\*28\*<x>

**Name:** **ZERO CREDIT RELAY**

**Description:** Sets relay 2 to activate automatically when the digital wallet reaches zero in Pre-Paid mode.

**Accepted Parameters:** Zero Credit Relay active = 1  
Zero Credit Relay inactive = 0

**Example:** \*\*28\*1

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**Command:** \*\*29\*<x>

**Name:** **ENABLE CASH-UP**

**Description:** Sets the status of the Cash-Up feature when the unit is used in Credit Mode.

**Accepted Parameters:** Cash-up feature active = 1  
Cash-up feature inactive = 0

**Example:** \*\*29\*1

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**Command:** \*\*30\*<x>

**Name:** **RELAY 1 ON TEXT**

**Description:** Sets the text string that the device will recognise as a SMS command to turn on relay 1 (case insensitive).

**Accepted Parameters:** Up to 20 characters

**Example:** \*\*30\*Switch on light

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**Command:** \*\*31\*<x>

**Name:** RELAY 1 OFF TEXT

**Description:** Sets the text string that the device will recognise as a SMS command to turn off relay 1 (case insensitive).

**Accepted Parameters:** Up to 20 characters

**Example:** \*\*30\* Switch off light

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**Command:** \*\*32\*<x>

**Name:** RELAY 2 ON TEXT

**Description:** Sets the text string that the device will recognise as a SMS command to turn on relay 2 (case insensitive).

**Accepted Parameters:** Up to 20 characters

**Example:** \*\*32\* Switch on light

---

**Command:** \*\*33\*<x>

**Name:** RELAY 2 OFF TEXT

**Description:** Sets the text string that the device will recognise as a SMS command to turn off relay 2 (case insensitive).

**Accepted Parameters:** Up to 20 characters

**Example:** \*\*33\* Switch off light

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**Command:** \*\*34\*<x>

**Name:** DIGITAL ON TEXT

**Description:** Sets the text string that the device will recognise as a SMS command to activate the digital output according to the setting in 103 (case insensitive).

**Accepted Parameters:** Up to 20 characters

**Example:** \*\*34\* Switch on LED

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**Command:** \*\*35\* <x>

**Name:** **DIGITAL OFF TEXT**

**Description:** Sets the text string that the device will recognise as a SMS command to de-activate the digital output according to the setting in 103 (case insensitive).

**Accepted Parameters:** Up to 20 characters

**Example:** \*\*35\* Switch off LED

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**Command:** \*\*36\* <x>

**Name:** **INPUT 1 ON TEXT**

**Description:** Sets the text string that the device will send to a report destination if input 1 is activated

**Accepted Parameters:** Up to 30 characters

**Example:** \*\*36\* Alarm zone 1 triggered

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**Command:** \*\*37\* <x>

**Name:** **INPUT 2 ON TEXT**

**Description:** Sets the text string that the device will send to a report destination if input 2 is activated

**Accepted Parameters:** Up to 30 characters

**Example:** \*\*37\* Alarm zone 2 triggered

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**Command:** \*\*38\* <x>

**Name:** **SITE NAME**

**Description:** Sets the text string that will be displayed at the top of each incoming SMS, can be used to identify the site/location of the unit.

**Accepted Parameters:** Up to 20 characters

**Example:** \*\*38\* Mary's Flower Shop

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**Command:** \*\*39\*<x>

**Name:** **COMMAND CONFIRMATION**

**Description:** When set, the device will return confirmation of a successful incoming command via SMS to the number from which the SMS command originated. Confirmation setting applies to all SMS commands used to switch an output peripheral port ON or OFF e.g. relay1, relay2, and digital output.

**Accepted Parameters:** Command Confirmation Enabled = 1  
Command Confirmation Disabled = 0

**Example:** \*\*39\*1

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**Command:** \*\*40\*<x>

**Name:** **SERVER**

**Description:** Sets the IP address or DNS host name for outgoing GPRS communications

**Accepted Parameters:** Up to 40 characters

**Example:** \*\*40\*martinelectronics.dyndns.org

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**Command:** \*\*41\*<x>

**Name:** **PORT**

**Description:** Sets the TCP port used for outgoing GPRS communications

**Accepted Parameters:** 0 to 65535

**Example:** \*\*41\*50551

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**Command:** \*\*42\*<x>

**Name:** **NET SELECT**

**Description:** Locks the device to a specific network by entering the network code. The network code entered must correspond to a code in 1 of the 5 available profiles or the value will default back to 0 (automatic network selection).

**Accepted Parameters:** Up to 10 digits

**Example:** \*\*42\*65501

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**Command:** \*\*43\*<x>

**Name:** **NET SELECT**

**Description:** Sets the account number associated with the SSMI server. This number will be automatically appended to the applicable network SSMI number on successful registration to the network.

**Accepted Parameters:** 0 to 65535

**Example:** \*\*43\*813

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**Command:** \*\*46\*<x>

**Name:** **SIM 1 CELL NUMBER**

**Description:** Stores the assigned network cell number of the SIM card placed into the primary tray of the device. Used for GPRS server identification and self SMS time setting

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*46\*27827915555

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**Command:** \*\*47\*<x>

**Name:** **SIM 2 CELL NUMBER**

**Description:** Stores the assigned network cell number of the SIM card placed into the secondary tray of the device. Used for GPRS server identification and self SMS time setting

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*47\*27827915555

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**Command:** \*\*48\*<x>

**Name:** **LOW VOLTAGE ALERT**

**Description:** Sets the SMS alert mode when a low voltage level is detected

**Accepted Parameters:** SMS Alert Inactive = 0  
SMS Alert Active = 1

**Example:** \*\*48\*1

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**Command:** \*\*49\*<x>

**Name:** **LOW VOLTAGE THRESHOLD**

**Description:** Sets the lower limit at which a low voltage condition will be triggered

**Accepted Parameters:** 0 to 15 (integers only)

**Example:** \*\*49\*10

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**Command:** \*\*50\*<x>

**Name:** **PROFILE NAME (1)**

**Description:** Sets the text string associated with the profile

**Accepted Parameters:** Up to 10 characters

**Example:** \*\*50\*Vodacom

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**Command:** \*\*51\*<x>

**Name:** **NETWORK ID (1)**

**Description:** Stores the network ID number associated with the profile

**Accepted Parameters:** Up to 10 digits

**Example:** \*\*51\*65510

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**Command:** \*\*52\*<x>

**Name:** **APN (1)**

**Description:** Stores the network access point name for the network associated with the profile

**Accepted Parameters:** Up to 25 characters

**Example:** \*\*52\*internet

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**Command:** \*\*53\*<x>

**Name:** **USERNAME (1)**

**Description:** Stores the username that the device will use to access the network APN

**Accepted Parameters:** Up to 20 characters

**Example:** \*\*53\*guest

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**Command:** \*\*54\*<x>

**Name:** **PASSWORD (1)**

**Description:** Stores the password that the device will use to access the network APN

**Accepted Parameters:** Up to 20 characters

**Example:** \*\*54\*guest

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**Command:** \*\*55\*<x>

**Name:** **SSMI NUMBER (1)**

**Description:** Stores the SSMI access cell number associated with the profile (network dependent). Number must include international dialling prefix.

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*55\*27820070540

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**Command:** \*\*56\*<x>

**Name:** **MESSAGE CENTRE (1)**

**Description:** Stores the message centre associated with the profile (network dependent). Number must include international dialling prefix.

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*56\*27820070540

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**Command:** \*\*57\*<x>

**Name:** **BALANCE USSD (1)**

**Description:** Stores the USSD code that the unit must dial in order to check its own airtime value

**Accepted Parameters:** Up to 8 characters

**Example:** \*\*57\*\*100#

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**Command:** \*\*60\*<x>

**Name:** **PROFILE NAME (2)**

**Description:** Sets the text string associated with the profile

**Accepted Parameters:** Up to 10 characters

**Example:** \*\*60\*Vodacom

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**Command:** \*\*61\*<x>

**Name:** **NETWORK ID (2)**

**Description:** Stores the network ID number associated with the profile

**Accepted Parameters:** Up to 10 digits

**Example:** \*\*61\*65510

---

**Command:** \*\*62\*<x>

**Name:** **APN (2)**

**Description:** Stores the network access point name for the network associated with the profile

**Accepted Parameters:** Up to 25 characters

**Example:** \*\*62\*internet

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**Command:** \*\*63\*>

**Name:** **USERNAME (2)**

**Description:** Stores the username that the device will use to access the network APN

**Accepted Parameters:** Up to 20 characters

**Example:** \*\*63\*guest

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**Command:** \*\*64\*>

**Name:** **PASSWORD (2)**

**Description:** Stores the password that the device will use to access the network APN

**Accepted Parameters:** Up to 20 characters

**Example:** \*\*64\*guest

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**Command:** \*\*65\*>

**Name:** **SSMI NUMBER (2)**

**Description:** Stores the SSMI access cell number associated with the profile (network dependent). Number must include international dialling prefix.

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*65\*27820070540

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**Command:** \*\*66\*>

**Name:** **MESSAGE CENTRE (2)**

**Description:** Stores the message centre associated with the profile (network dependent). Number must include international dialling prefix.

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*66\*27820070540

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**Command:** \*\*67\*<x>

**Name:** **BALANCE USSD (2)**

**Description:** Stores the USSD code that the unit must dial in order to check its own airtime value

**Accepted Parameters:** Up to 8 characters

**Example:** \*\*67\*\*100#

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**Command:** \*\*70\*<x>

**Name:** **PROFILE NAME (3)**

**Description:** Sets the text string associated with the profile

**Accepted Parameters:** Up to 10 characters

**Example:** \*\*70\*Vodacom

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**Command:** \*\*71\*<x>

**Name:** **NETWORK ID (3)**

**Description:** Stores the network ID number associated with the profile

**Accepted Parameters:** Up to 10 digits

**Example:** \*\*71\*65510

---

**Command:** \*\*72\*<x>

**Name:** **APN (3)**

**Description:** Stores the network access point name for the network associated with the profile

**Accepted Parameters:** Up to 25 characters

**Example:** \*\*72\*internet

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**Command:** \*\*73\*<x>

**Name:** **USERNAME (3)**

**Description:** Stores the username that the device will use to access the network APN

**Accepted Parameters:** Up to 20 characters

**Example:** \*\*73\*guest

---

**Command:** \*\*74\*<x>

**Name:** **PASSWORD (3)**

**Description:** Stores the password that the device will use to access the network APN

**Accepted Parameters:** Up to 20 characters

**Example:** \*\*74\*guest

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**Command:** \*\*75\*<x>

**Name:** **SSMI NUMBER (3)**

**Description:** Stores the SSMI access cell number associated with the profile (network dependent). Number must include international dialling prefix.

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*75\*27820070540

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**Command:** \*\*76\*<x>

**Name:** **MESSAGE CENTRE (3)**

**Description:** Stores the message centre associated with the profile (network dependent). Number must include international dialling prefix.

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*76\*27820070540

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**Command:** \*\*77\*<x>

**Name:** **BALANCE USSD (3)**

**Description:** Stores the USSD code that the unit must dial in order to check its own airtime value

**Accepted Parameters:** Up to 8 characters

**Example:** \*\*77\*\*100#

---

**Command:** \*\*80\*<x>

**Name:** **PROFILE NAME (4)**

**Description:** Sets the text string associated with the profile

**Accepted Parameters:** Up to 10 characters

**Example:** \*\*80\*Vodacom

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**Command:** \*\*81\*<x>

**Name:** **NETWORK ID (4)**

**Description:** Stores the network ID number associated with the profile

**Accepted Parameters:** Up to 10 digits

**Example:** \*\*81\*65510

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**Command:** \*\*82\*<x>

**Name:** **APN (4)**

**Description:** Stores the network access point name for the network associated with the profile

**Accepted Parameters:** Up to 25 characters

**Example:** \*\*82\*internet

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**Command:** \*\*83\*<x>

**Name:** **USERNAME (4)**

**Description:** Stores the username that the device will use to access the network APN

**Accepted Parameters:** Up to 20 characters

**Example:** \*\*83\*guest

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**Command:** \*\*84\*<x>

**Name:** **PASSWORD (4)**

**Description:** Stores the password that the device will use to access the network APN

**Accepted Parameters:** Up to 20 characters

**Example:** \*\*84\*guest

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**Command:** \*\*85\*<x>

**Name:** **SSMI NUMBER (4)**

**Description:** Stores the SSMI access cell number associated with the profile (network dependent). Number must include international dialling prefix.

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*85\*27820070540

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**Command:** \*\*86\*<x>

**Name:** **MESSAGE CENTRE (4)**

**Description:** Stores the message centre associated with the profile (network dependent). Number must include international dialling prefix.

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*86\*27820070540

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**Command:** \*\*87\*<x>

**Name:** **BALANCE USSD (4)**

**Description:** Stores the USSD code that the unit must dial in order to check its own airtime value

**Accepted Parameters:** Up to 8 characters

**Example:** \*\*87\*\*100#

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**Command:** \*\*90\*<x>

**Name:** **PROFILE NAME (5)**

**Description:** Sets the text string associated with the profile

**Accepted Parameters:** Up to 10 characters

**Example:** \*\*80\*Vodacom

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**Command:** \*\*91\*<x>

**Name:** **NETWORK ID (5)**

**Description:** Stores the network ID number associated with the profile

**Accepted Parameters:** Up to 10 digits

**Example:** \*\*91\*65510

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**Command:** \*\*92\*<x>

**Name:** **APN (5)**

**Description:** Stores the network access point name for the network associated with the profile

**Accepted Parameters:** Up to 25 characters

**Example:** \*\*92\*internet

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---

**Command:** \*\*93\*<x>

**Name:** **USERNAME (5)**

**Description:** Stores the username that the device will use to access the network APN

**Accepted Parameters:** Up to 20 characters

**Example:** \*\*93\*guest

---

**Command:** \*\*94\*<x>

**Name:** **PASSWORD (5)**

**Description:** Stores the password that the device will use to access the network APN

**Accepted Parameters:** Up to 20 characters

**Example:** \*\*94\*guest

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**Command:** \*\*95\*<x>

**Name:** **SSMI NUMBER (5)**

**Description:** Stores the SSMI access cell number associated with the profile (network dependent). Number must include international dialling prefix.

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*95\*27820070540

---

**Command:** \*\*96\*<x>

**Name:** **MESSAGE CENTRE (5)**

**Description:** Stores the message centre associated with the profile (network dependent). Number must include international dialling prefix.

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*96\*27820070540

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---

**Command:** \*\*97\*<x>

**Name:** **BALANCE USSD (5)**

**Description:** Stores the USSD code that the unit must dial in order to check its own airtime value

**Accepted Parameters:** Up to 8 characters

**Example:** \*\*97\*\*100#

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**Command:** \*\*100\*<x>

**Name:** **RELAY 1 MODE**

**Description:** Sets the mode in which relay 1 will operate when activated.

**Accepted Parameters:** LATCH = 0  
PULSE = 1  
TOGGLE = 2

**Example:** \*\*100\*1

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**Command:** \*\*101\*<x>

**Name:** **RELAY 2 MODE**

**Description:** Sets the mode in which relay 2 will operate when activated.

**Accepted Parameters:** LATCH = 0  
PULSE = 1  
TOGGLE = 2

**Example:** \*\*101\*2

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**Command:** \*\*102\*<x>

**Name:** **DIGITAL MODE**

**Description:** Sets the mode in which the digital output will operate when activated.

**Accepted Parameters:** LATCH = 0  
PULSE = 1  
TOGGLE = 2

**Example:** \*\*102\*0

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**Command:** \*\*103\*<x>

**Name:** **DIGITAL ACTIVE**

**Description:** Sets the digital output to be active-high, or active-low

**Accepted Parameters:** Active High = 1  
Active Low = 0

**Example:** \*\*103\*0

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**Command:** \*\*104\*<x>

**Name:** **RELAY 1 TIME ON**

**Description:** Sets the time the relay will be in the "ON" state when activated.  
Only applicable in pulse or toggle mode.

**Accepted Parameters:** 10ms to 100 hours  
Set in increments of 10ms e.g. 11 = 110ms

**Example:** \*\*104\*100

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**Command:** \*\*105\*<x>

**Name:** **RELAY 2 TIME ON**

**Description:** Sets the time the relay will be in the "ON" state when activated.  
Only applicable in pulse or toggle mode.

**Accepted Parameters:** 10ms to 100 hours  
Set in increments of 10ms e.g. 11 = 110ms

**Example:** \*\*105\*100

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**Command:** \*\*106\*<x>

**Name:** **DIGITAL TIME ON**

**Description:** Sets the time the digital output will be in the "ON" state when activated. Only applicable in pulse or toggle mode.

**Accepted Parameters:** 10ms to 100 hours  
Set in increments of 10ms e.g. 11 = 110ms

**Example:** \*\*106\*100

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**Command:** \*\*107\*<x>

**Name:** RELAY 1 TIME OFF

**Description:** Sets the time the relay will be in the "OFF" state when activated. Only applicable in pulse or toggle mode.

**Accepted Parameters:** 10ms to 100 hours  
Set in increments of 10ms e.g. 11 = 110ms

**Example:** \*\*107\*100

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**Command:** \*\*108\*<x>

**Name:** RELAY 2 TIME OFF

**Description:** Sets the time the relay will be in the "OFF" state when activated. Only applicable in pulse or toggle mode.

**Accepted Parameters:** 10ms to 100 hours  
Set in increments of 10ms e.g. 11 = 110ms

**Example:** \*\*108\*100

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**Command:** \*\*109\*<x>

**Name:** DIGITAL TIME OFF

**Description:** Sets the time the digital output will be in the "OFF" state when activated. Only applicable in pulse or toggle mode.

**Accepted Parameters:** 10ms to 100 hours  
Set in increments of 10ms e.g. 11 = 110ms

**Example:** \*\*109\*100

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**Command:** \*\*110\*<x>

**Name:** MISSED CALL PORT

**Description:** Sets the output port that will be activated on an authorised incoming call.

**Accepted Parameters:** RELAY1 = 0  
RELAY2 = 1  
DIGITAL OUTPUT = 2

**Example:** \*\*110\*1

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**Command:** \*\*111\*<x>

**Name:** **SIM FAIL-OVER**

**Description:** Sets whether the device will alternate SIM trays if network coverage is lost or registration fails. A SMS is sent to all report parties if a SIM change is initiated by the device.

**Accepted Parameters:** Fail-over active = 1  
Fail-over inactive = 0

**Example:** \*\*111\*1

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**Command:** \*\*112\*<x>

**Name:** **LOW POWER MODE**

**Description:** Sets low power mode on the device. In this mode the GSM module will be activated for 3 minutes at a time and then shut down again.

**Accepted Parameters:** Low Power Mode Active = 1  
Low Power Mode Inactive = 0

**Example:** \*\*112\*0

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**Command:** \*\*113\*<x>

**Name:** **SLEEP TIME**

**Description:** Sets the intervals (in minutes) at which the module will be activated for the “awake” period (see \*\*140). E.g. a value of 360 will result in the module waking up every 6 hours.

**Accepted Parameters:** 1 to 65535

**Example:** \*\*113\*360

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**Command:** \*\*114\*<x>

**Name:** **REPORT TIME**

**Description:** Sets the interval (in minutes) at which the unit will automatically send a status report to the preset report destinations. E.g. a value of 1440 will result in a report being sent every 24 hours.

**Accepted Parameters:** 1 to 65535

**Example:** \*\*114\*360

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**Command:** \*\*115\*<x>

**Name:** **RESET TIME**

**Description:** Sets the interval (in minutes) at which the unit will automatically reset the modem, provided there are no operations in progress. E.g. a value of 1440 will result in a report being sent every 24 hours.

**Accepted Parameters:** 1 to 65535

**Example:** \*\*115\*240

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**Command:** \*\*117\*<x>

**Name:** **ADD AUTH USERS TO REPORT DESTINATIONS**

**Description:** Automatically places both Authorised Users in the Report Destinations table. Authorised users will receive all alerts.

**Accepted Parameters:** Add Auth Users to Reports = 1  
Don't add Auth Users to Reports = 0

**Example:** \*\*117\*0

---

**Command:** \*\*118\*<x>

**Name:** **RESPOND TO REPORT DESTINATIONS**

**Description:** When enabled, the unit will send all responses to authorised commands (e.g. BALANCE) to the normal report destination(s) via SMS/GPRS. When disabled, the response will be sent via SMS to the initiating party only.

**Accepted Parameters:** Respond To All Report Destinations = 1  
Respond To Initiating Party Only = 0

**Example:** \*\*118\*1

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**Command:** \*\*119\*<x>

**Name:** **SET DATE/TIME AUTOMATICALLY**

**Description:** When enabled, the unit will automatically send an SMS to the SIM Cell Number (see \*\*46) and extract the time from the network. An SMS will only be sent if an invalid date/time is detected. Once set, power may be removed from the unit for up to 30 min without losing the date/time setting.

**Accepted Parameters:** Set Date/Time Automatically = 1  
Do Not Set Date/Time Automatically = 0

**Example:** \*\*119\*1

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**Command:** \*\*130\*0<x>

**Name:** **CLEAR CASH-UP TOTAL**

**Description:** Clears (sets to 0) the amount stored in the cash-up memory.

**Example:** \*\*130\*0

---

**Command:** \*\*131\*<x>

**Name:** **INPUT 1 OFF DELAY**

**Description:** The time for which the input state must be altered (when ON) before a trigger event will be initiated. The OFF delay must be exceeded before another ON trigger will be considered.

**Accepted Parameters:** 1 to 65000  
Stores in increments of 10ms e.g. 112 = 1120ms

**Example:** \*\*131\*112

---

**Command:** \*\*132\*<x>

**Name:** **INPUT 2 OFF DELAY**

**Description:** The time for which the input state must be altered (when ON) before a trigger event will be initiated. The OFF delay must be exceeded before another ON trigger will be considered.

**Accepted Parameters:** 1 to 65000  
Stores in increments of 10ms e.g. 112 = 1120ms

**Example:** \*\*132\*112

---

**Command:** \*\*133\*<x>

**Name:** **INPUT 1 TRIGGER MODE**

**Description:** Sets one of the 3 trigger modes available on the device (see 3.2.4 in User Manual).

**Accepted Parameters:** ON Trigger Only = 0  
OFF Trigger Only = 1  
ON/OFF Trigger = 2

**Example:** \*\*133\*0

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**Command:** \*\*134\*<x>

**Name:** **INPUT 2 TRIGGER MODE**

**Description:** Sets one of the 3 trigger modes available on the device (see 3.2.4 in User Manual).

**Accepted Parameters:** ON Trigger Only = 0  
OFF Trigger Only = 1  
ON/OFF Trigger = 2

**Example:** \*\*134\*1

---

**Command:** \*\*135\*<x>

**Name:** **INPUT 1 OFF TEXT**

**Description:** Sets the text string that the device will send to a report destination if input 1 is deactivated

**Accepted Parameters:** Up to 30 characters

**Example:** \*\*135\*Mains power restored

---

**Command:** \*\*136\*<x>

**Name:** **INPUT 2 OFF TEXT**

**Description:** Sets the text string that the device will send to a report destination if input 2 is deactivated

**Accepted Parameters:** Up to 30 characters

**Example:** \*\*136\*Mains power restored

---

**Command:** \*\*137\*<x>

**Name:** **INPUT 1 PULSE TIMEOUT**

**Description:** Sets the time after which the OFF Trigger will become invalid. Used as a safety against spurious triggers if the power supply is unreliable or frequently switched.

**Accepted Parameters:** 10ms to 2500ms  
Set in increments of 10ms e.g. 110 = 1100ms

**Example:** \*\*137\*110

---

**Command:** \*\*138\*<x>

**Name:** **INPUT 2 PULSE TIMEOUT**

**Description:** Sets the time after which the OFF Trigger will become invalid. Used as a safety against spurious triggers if the power supply is unreliable or frequently switched.

**Accepted Parameters:** 10ms to 2500ms  
Set in increments of 10ms e.g. 110 = 1100ms

**Example:** \*\*138\*110

---

**Command:** \*\*139\*<x>

**Name:** **PULSE TEST**

**Description:** When enabled, the unit will activate relay 1 (subject to the relay's settings, see 3.2.3) when input 2 is activated (ON Trigger).

**Accepted Parameters:** Enable Pulse Test = 1  
Disable Pulse Test = 0

**Example:** \*\*139\*0

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**Command:** \*\*140\*<x>

**Name:** **LOW POWER ON TIME**

**Description:** Used in low power mode (see \*\*112). Sets the time duration (in minutes) that the device will be active on the network before it returns to sleep state.

**Accepted Parameters:** 1 to 65535

**Example:** \*\*140\*5

---

**Command:** \*\*141\*<x>

**Name:** **REAL-TIME CLOCK REPORT ENABLE**

**Description:** When enabled, the unit will send a daily report message at the precise hour and minute stipulated in this field.

**Accepted Parameters:** Enable Real-time Report = 1  
Disable Real-time Report = 0

**Example:** \*\*141\*0

---

**Command:** \*\*142\*<x>

**Name:** **REAL-TIME CLOCK REPORT TIME**

**Description:** Sets the precise hour and minute that a daily report message will be issued (when enabled). The first 2 digits indicate the hour and the last 2 digits indicate the minutes (24-hour time base).

**Accepted Parameters:** 0000 to 2359

**Example:** \*\*142\*0815 (8:15AM)

---

**Command:** \*\*143\*<x>

**Name:** **PERIODIC BALANCE REPORT**

**Description:** Sets the duration (in minutes) after which the network will be automatically polled for the latest prepaid balance. The result will be sent to all Report Destinations. Set to zero to disable.

**Accepted Parameters:** 0 to 65000

**Example:** \*\*143\*10080

---

**Command:** \*\*144\*<x>

**Name:** **ENABLE PULSE COUNT**

**Description:** When enabled, the unit will count each pulse received on the INPUT 1 port.

**Accepted Parameters:** Enable Pulse Count = 1  
Disable Pulse Count = 0

**Example:** \*\*144\*1

---

**Command:** \*\*145  
**Name:** READ PULSE COUNT  
**Description:** Reads the current pulse count.  
**Accepted Parameters:** \*\*145  
**Example:** \*\*145

---

**Command:** \*\*146\*0  
**Name:** CLEAR PULSE COUNT  
**Description:** Clears the current pulse count.  
**Accepted Parameters:** \*\*146\*0  
**Example:** \*\*146\*0

---

**Command:** \*\*147\*<x>  
**Name:** ENABLE PULSE ALERT  
**Description:** When enabled, an alert will be sent when the preselected pulse threshold is reached, or a multiple of it thereafter.  
**Accepted Parameters:** Enable Pulse Alert = 1  
Disable Pulse Alert = 0  
**Example:** \*\*147\*1

---

**Command:** \*\*148\*<x>  
**Name:** PULSE ALERT VALUE  
**Description:** Sets the pulse threshold at which an alert will be triggered. An alert will be triggered at every multiple of the alert value. See 3.2.7 in User Manual.  
**Accepted Parameters:** 1 to 4exp9  
**Example:** \*\*148\*100000

---

---

**Command:** \*\*150\*<x>

**Name:** **EXTENDED REPORT DESTINATION 6** (on applicable models)

**Description:** Destination for all outgoing SMS reports and alerts. Number must include the international dialling prefix  
E.g. 27825554321

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*150\*27827910856

---

**Command:** \*\*151\*<x>

**Name:** **EXTENDED REPORT DESTINATION 7** (on applicable models)

**Description:** Destination for all outgoing SMS reports and alerts. Number must include the international dialling prefix  
E.g. 27825554321

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*151\*27827910856

---

**Command:** \*\*152\*<x>

**Name:** **EXTENDED REPORT DESTINATION 8** (on applicable models)

**Description:** Destination for all outgoing SMS reports and alerts. Number must include the international dialling prefix  
E.g. 27825554321

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*152\*27827910856

---

**Command:** \*\*153\*<x>

**Name:** **EXTENDED REPORT DESTINATION 9** (on applicable models)

**Description:** Destination for all outgoing SMS reports and alerts. Number must include the international dialling prefix  
E.g. 27825554321

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*153\*27827910856

---

**Command:** \*\*154\*<x>

**Name:** **EXTENDED REPORT DESTINATION 10** (on applicable models)

**Description:** Destination for all outgoing SMS reports and alerts. Number must include the international dialling prefix  
E.g. 27825554321

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*154\*27827910856

---

**Command:** \*\*155\*<x>

**Name:** **EXTENDED REPORT DESTINATION 11** (on applicable models)

**Description:** Destination for all outgoing SMS reports and alerts. Number must include the international dialling prefix  
E.g. 27825554321

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*155\*27827910856

---

**Command:** \*\*156\*<x>

**Name:** **EXTENDED REPORT DESTINATION 12** (on applicable models)

**Description:** Destination for all outgoing SMS reports and alerts. Number must include the international dialling prefix  
E.g. 27825554321

**Accepted Parameters:** Up to 16 digits

**Example:** \*\*156\*27827910856

---

**Command:** \*\*170\*<x>

**Name:** **RESET ALERT**

**Description:** When enabled, the unit will send an alert to all report destinations if an unscheduled reset occurs. E.g. A power cycle.

**Accepted Parameters:** Enable Reset Alert = 1  
Disable Reset Alert = 0

**Example:** \*\*170\*1

---

**Command:** REPORT

**Name:** **STATUS REPORT**

**Description:** Solicits a status report from the unit via SMS. The device shall only respond to the destination from which the query originated.

**Unit Response:**

- Signal strength
- Power level
- Status of output ports
- Status of input ports

---

**Command:** BALANCE

**Name:** **AIRTIME BALANCE**

**Description:** Queries the airtime balance on the active SIM card via SMS. The unit solicits the airtime value from the network via USSD and sends an exact replication of the text string back to the destination from which the query originated. (See Balance USSD, \*\*57)

**Unit Response:** USSD text string containing airtime value.

---

**Command:** HARDRESET

**Name:** **HARD RESET**

**Description:** Issues an assembler-level reset to the microcontroller

**Unit Response:** N/A

---

**Command:** GENSET<space><x>

**Name:** **GENERAL SETTINGS**

**Description:** Queries the general settings on the device. One of 10 settings lists may be queried, depending on which setting is required. The settings breakdown is as follows:

- GENSET 1: Settings 1, 2, 3, 4, 5, 6, 7, 8, 9
- GENSET 2: Settings 10, 11, 12, 13, 14
- GENSET 3: Settings 15, 16, 17, 18, 19, 20
- GENSET 4: Settings 21, 22, 23, 28, 29
- GENSET 5: Settings 30, 31, 32, 33
- GENSET 6: Settings 34, 35, 36, 37
- GENSET 7: Settings 38, 39, 40, 41, 42
- GENSET 8: Settings 43, 45, 46, 47, 48, 49
- GENSET 9: Settings 100, 101, 102, 103, 104, 105, 106
- GENSET 10: Settings 107, 108, 109, 110, 111
- GENSET 11: Settings 112, 113, 114, 115, 117
- GENSET 12: Settings 118, 119, 131, 132, 133, 134

- GENSET 13: Settings 135, 136, 137, 138, 139
- GENSET 14: Settings 140, 141, 142, 143
- GENSET 15: Settings 150, 151, 152, 153
- GENSET 16: Settings 154, 155, 156
- GENSET 17: Settings 170

**Unit Response:** The response contains the number of the setting, a brief description of the setting, as well as the setting value. E.g. 10-R1  
STAT: 0

**Example:** genset 10

**Command:** PROFSET<space><x>

**Name:** **PROFILE SETTINGS**

**Description:** Queries the settings for one of 5 (x value) network profiles stored on the device.

**Unit Response:** The response fields are as follows:  
 -Profile Number  
 -Profile Name  
 -APN  
 -Username  
 -Password  
 -SSMI Number  
 -Message Centre Number  
 -USSD Balance Command

**Example:** profset 2

**Command:** MONI

**Name:** **NETWORK PARAMETERS**

**Description:** Queries the real-time status of the cellular network on which the device is operating.

**Unit Response:** The response fields are as follows:  
 - Network Name  
 - Base Station ID (BSIC)  
 - Reception Quality (RxQual)  
 - Local Area Code (LAC)  
 - Cell ID (Id)  
 - Radio Channel (ARFCN)  
 - Rx Signal Strength (PWR)  
 - Timing Advance (TA)

---

**Command:** REPCREDIT

**Name:** **CREDIT REPORT**

**Description:** Solicits a credit report from the device. Only applicable if Credit Mode is activated (see \*\*21)

**Unit Response:** The response fields are as follows:  
Credit Mode  
Coin Count Value  
Credit Balance  
Last Action Taken (Addition or Deletion of Credit)  
Low Balance Alert Status (see \*\*22)  
Low Credit Value (see \*\*23)

---

**Command:** ADDCREDIT<space><x>

**Name:** **ADD CREDIT**

**Description:** Adds credits to the existing credit balance on the device. <x> may be any integer value from 0 to 65535

**Unit Response:** Credit report automatically issued when user changes credit value. (See REPCREDIT)

---

**Command:** DELCREDIT<space><x>

**Name:** **DELETE CREDIT**

**Description:** Deletes credits from the existing credit balance on the device. <x> may be any integer value from 0 to 65535. The credit balance may not become negative and any negative resultant value will automatically be increased to 0.

**Unit Response:** Credit report automatically issued when user changes credit value. (See REPCREDIT)

---

**Command:** CLRRCREDIT

**Name:** **CLEAR CREDIT**

**Description:** Clears the credit balance on the device and sets the value to 0.

**Unit Response:** Credit report automatically issued when user changes credit value. (See REPCREDIT)

---

---

**Command:** RESETCOIN

**Name:** **RESET COIN COUNTER**

**Description:** Clears the coin count balance on the device and sets the value to 0.

**Unit Response:** Credit report automatically issued when user changes credit value. (See REPCREDIT)

---

**Command:** CLOSECASHUP

**Name:** **CLOSE CASH-UP**

**Description:** Clears the cash-up count and subtracts the cash-up value from the current coin count.

**Unit Response:** Credit report automatically issued when user issues command. (See REPCREDIT)

---

**Command:** ADDUSER<space><x>

**Name:** **ADD USER**

**Description:** Adds a user number to the "Authorised User" table. <x> is the telephone number to be added. E.g. 27827914321

**Unit Response:** No Response Issued

---

**Command:** DELUSER<space><x>

**Name:** **DELETE USER**

**Description:** Deletes a user number from the "Authorised User" table <x> is the telephone number to be deleted. E.g. 27827914321

**Unit Response:** No Response Issued

---

**Command:** CLRTBL

**Name:** **CLEAR TABLE**

**Description:** Deletes all entries from the "Authorised User" table

**Unit Response:** No Response Issued

---

---

**Command:** CHKUSER<space><x>

**Name:** **CHECK USER**

**Description:** Checks if a particular number is stored in the "Authorised User" table. <x> is the telephone number to be checked for.  
E.g. 27827914321

**Unit Response:** Returns the number that was checked for and the index in the table where the number is stored. If the number is not found then a "not found" status is returned.

---

**Command:** CHKADDR

**Name:** **CHECK ADDRESSES**

**Description:** Checks the status of the "Authorised User" memory addresses.

**Unit Response:** Returns the total number of memory addresses, the number of available memory addresses and the number of occupied memory addresses.

---

**Command:** SERVICEON

**Name:** **SERVICE ON**

**Description:** Puts the device into "service" mode. In this mode, the unit will function normally in credit mode, but the coin count will not be incremented and the credit value will not be decremented. An alert will be generated and sent. The unit must be reset to exit this mode or the SERVICEOFF command may be issued.

**Unit Response:** LED flashes red in 20 msec intervals and alert sent

---

**Command:** SERVICEOFF

**Name:** **SERVICE OFF**

**Description:** Takes the device out of "service" mode. The GSM module will be restarted and an alert will be sent.

**Unit Response:** GSM module restarts and an alert is sent

---

---

**Command:** GET<space>TIME

**Name:** GET TIME

**Description:** Queries the date/time that is currently set on the unit. Note: the date/time that is returned is the value that was on the unit at the time of querying the device.

**Unit Response:** Currently stored date/time value

---

**Command:** SET<space>TIME

**Name:** SET TIME

**Description:** Sets the current date/time on the device. When the device receives the "SET TIME" SMS, it will automatically extract the correct date/time from the network and reset the value. You may send the device the "GET TIME" command (above) to verify that the correct date/time has been set.

**Unit Response:** No response

---

**Command:** ADMIN<space><x>

**Name:** ADMIN

**Description:** Adds an Authorised User via SMS. This command ONLY works when **NO** authorised users have been added to the device. Any cell phone that sends through this string will have full access to the device. For this reason, the user is advised to have at least 1 authorised number loaded, this command may be used for this purpose. <x> denotes the telephone number that you wish to add as the authorised user. Type in the number in international format. E.g. 27825551234

**Unit Response:** The new Authorised Number (x) will be sent a SMS confirming that they have been successfully added to the unit.

---