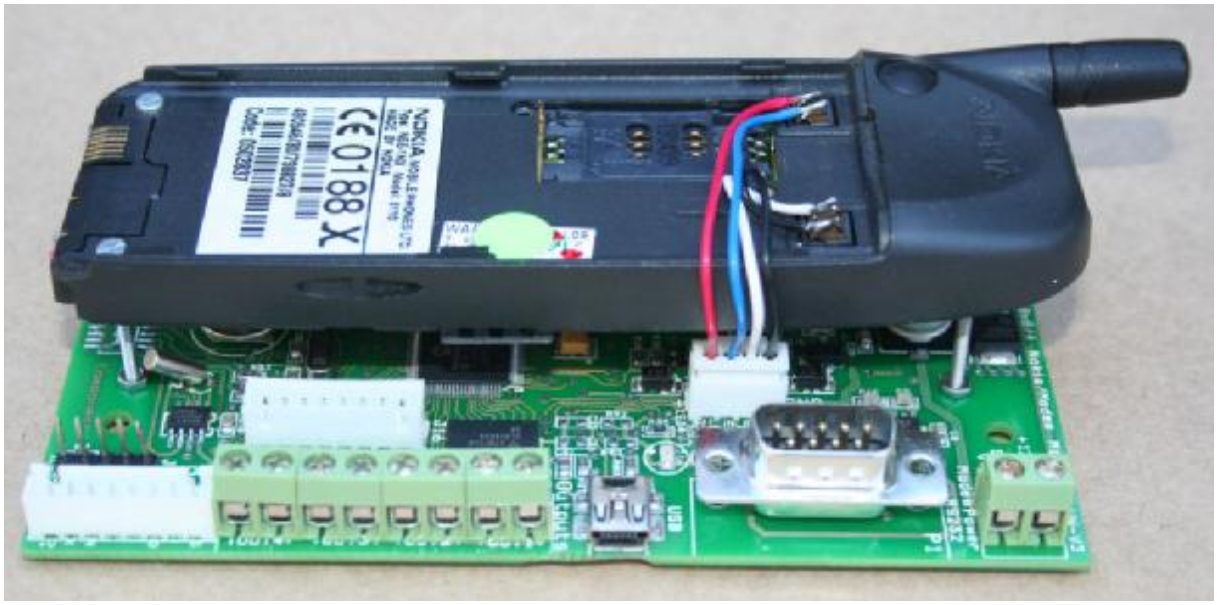
Cellcop Communicator

CP8x8u-N

May 2011

Instruction Manual



ABOUT THE CELLCOP COMMUNICATOR SYSTEM

The GSM communicator system is based on GSM SMS technology. It uses standard cellphone technology for communication and has been designed to provide you with the greatest possible flexibility and convenience. Read this manual carefully and have your installer instruct you on your system's operation and on which features have been implemented in your system. All users of this system should be equally instructed in its use.

1. Features

8 Inputs to communicate separate alarm conditions

- Each input can be triggered to send an SMS to up to 16 Cellphone numbers
- The time delay before the input is triggered can be set for each input
- Separate messages can be configured for On and Off states of the input signal
- Messages to be send can be programmed by the user
- On or Off states can both be reported to predefined cellphone numbers.
- Reporting can be disabled for an input
- The states of the inputs can be requested from the unit by SMS
- Monitoring of the inputs can be controlled using different modes
- Inputs can trigger Voice call to configured numbers

8 Outputs to control any electrical device

- Outputs can be controlled by cellphone using SMS (Switching the output on, off or pulse)
- Outputs can be controlled using missed calls (Voice, Fax and data)
- Output controls can be scheduled
- The duration of the pulse can be programmed for each output
- Outputs can be set to follow the state of an input
- Output can be set to switch on when the unit is dialed
- Status of an output can be requested from the unit by SMS
- Analog Limits can control the switching of outputs
- Own text can be used to control outputs

Monitor AC power using the charger input

- AC power can be monitored by using the charger input.
- SMS can be send to up to 16 numbers when an power failure occur and when the power return

Monitor the battery status

- The battery status can be monitored by the system.
- SMS can be send to up to 16 numbers when the battery go faulty.
- The battery is monitored by disconnecting it from the main supply and to measure the battery voltage while connected to a load.

Gate Remote using a missed call

- 55 Numbers cellphone number gate remote
- Can decide if a number has Vehicle access or pedestrian Access
- Vehicle and Pedestrian access are controlled
- Add and delete numbers via SMS

Scheduled Commands

- The execution of commands can be scheduled

Voice call on alarms

- Alarms can be configured to initiate voice calls when they occur
- Can call different numbers for different alarms

Log Events

- The system will log events configured to be logged
- Logged events will be time stamped from the Cell phones Date/Time
- Events can be downloaded into a comma delimited file for analysis

Configurable Status Messages

- Status messages can be configures to user requirements
- Status can be attached to alarm messages

LCD Addon

- Display Status information on LCD display
- Multiple pages on LCD Display
- Pages configurable to user requirements

Configurable SMS to confirm all OK

- Unit can be setup to SMS status to confirm all OK

Configuration tool to configure unit to user requirements

- All parameters can be set from config tool.
- Remote programming possible from the configuration tool
- Save and Load from files for backup

2. Operation of the GSM communicator

2.1 Setting up the Unit for operation

The following steps should be followed to use the GSM communicator

1. Insert a SIM card of choice (Remove the pin request)
2. Power the unit configure it using the supplied programming software (See Programming the GSM Communicator)
3. Wire up the inputs to sensors.
4. Wire outputs to devices to be controlled
5. Connect power and battery to the unit

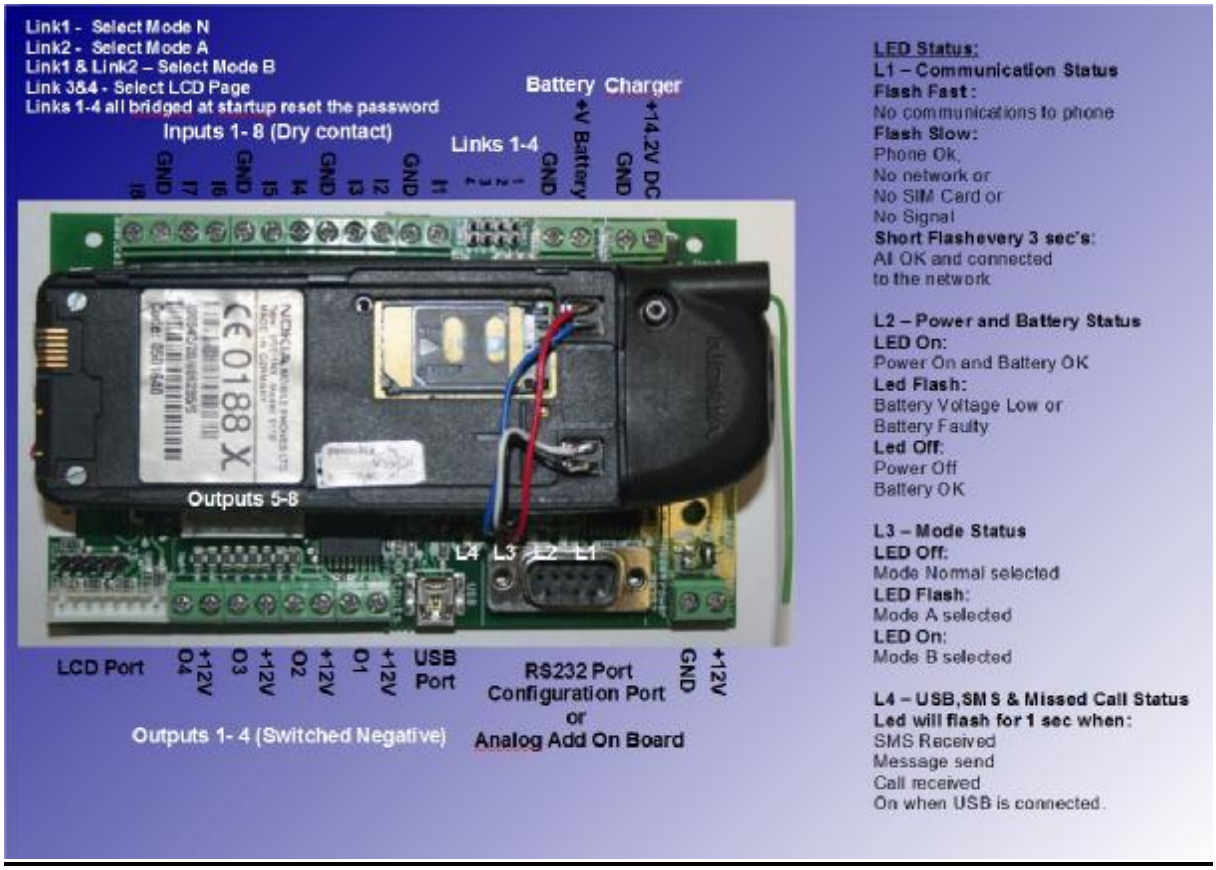


Figure 1: Setup used by the Cellcop 8x4 micro Nokia Communicator

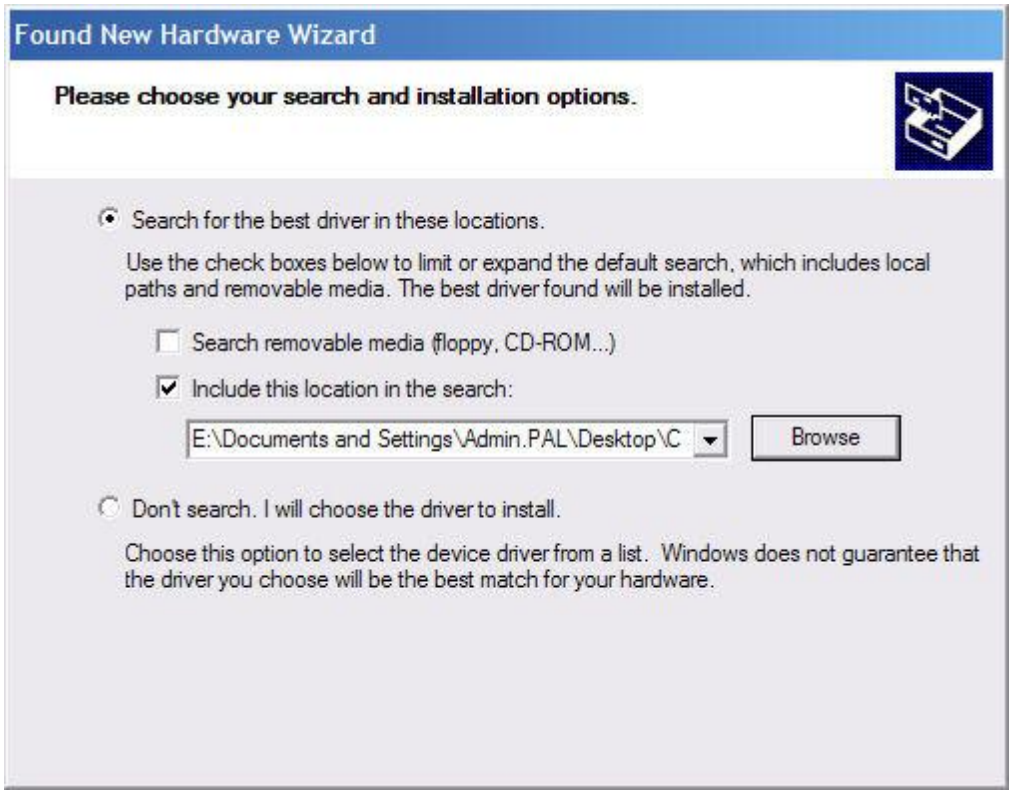
2.2 Programming the GSM Communicator

2.2.1 USB cable programming:

New versions of the CP88u has a USB port for configuration programming via a USB port. To use the USB programming option u need to install the USB driver. When the USB cable is inserted for the first time a window will popup to begin the driver installation.

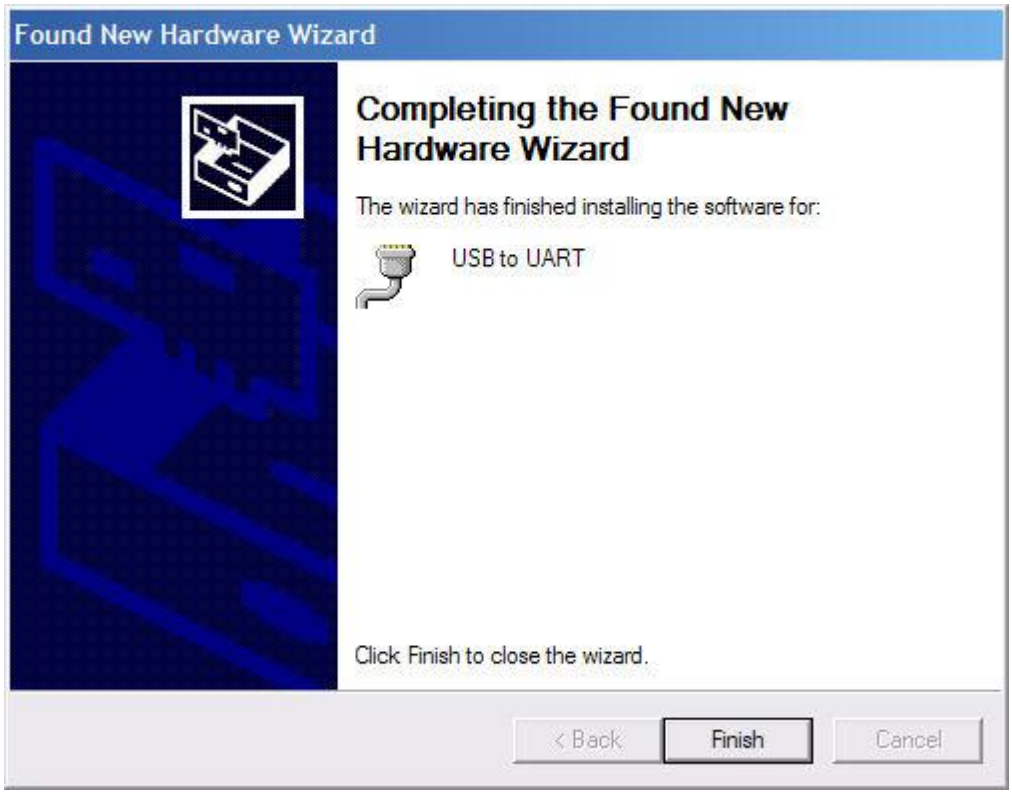
Select Install from specific location and click next.

Select the location where the driver is located.



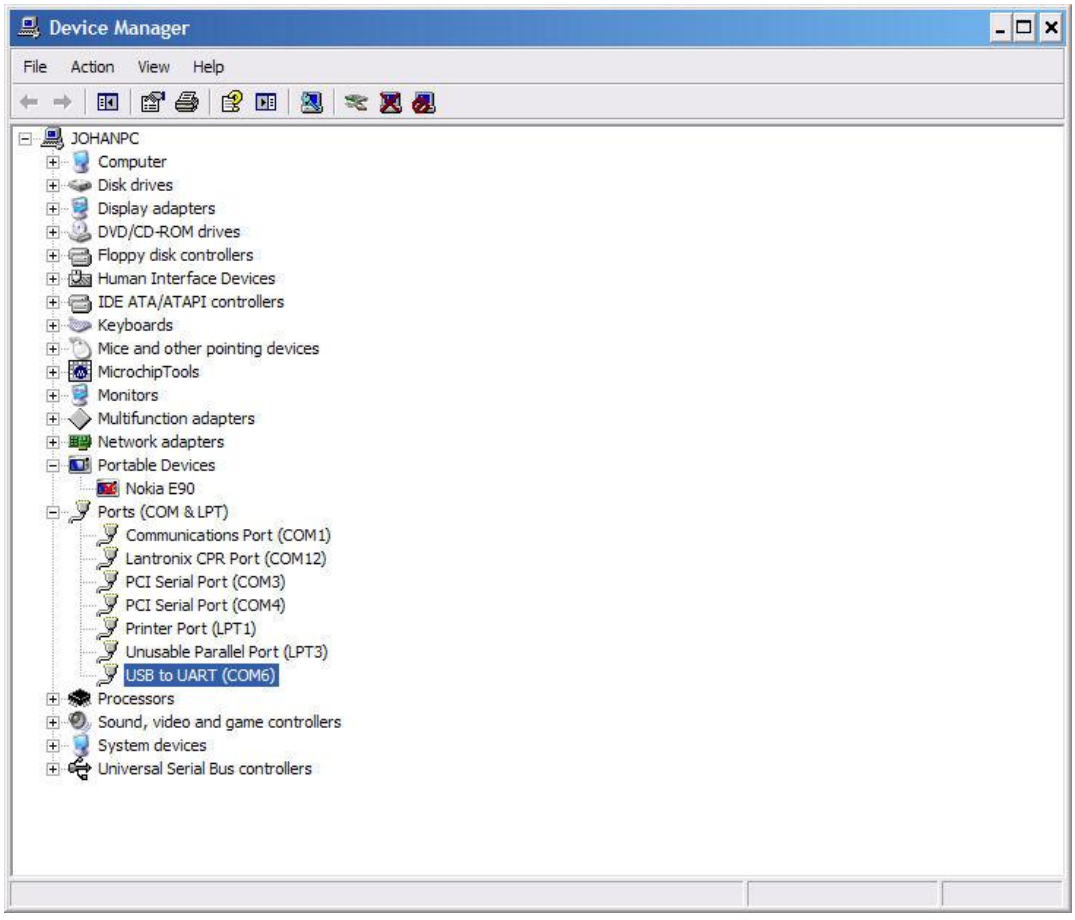
Click Next

Click Continue Anyway



Click Finish. Driver is successfully installed. This will add a serial port to your existing ports. Use this serial port when programming as in paragraph 2.2.2

To find out which port is the USB port go to the device manager and click on ports. It's the port with USB to UART next to it. Use this port in the next section.



2.2.2 Cable programming:

Programming Cable

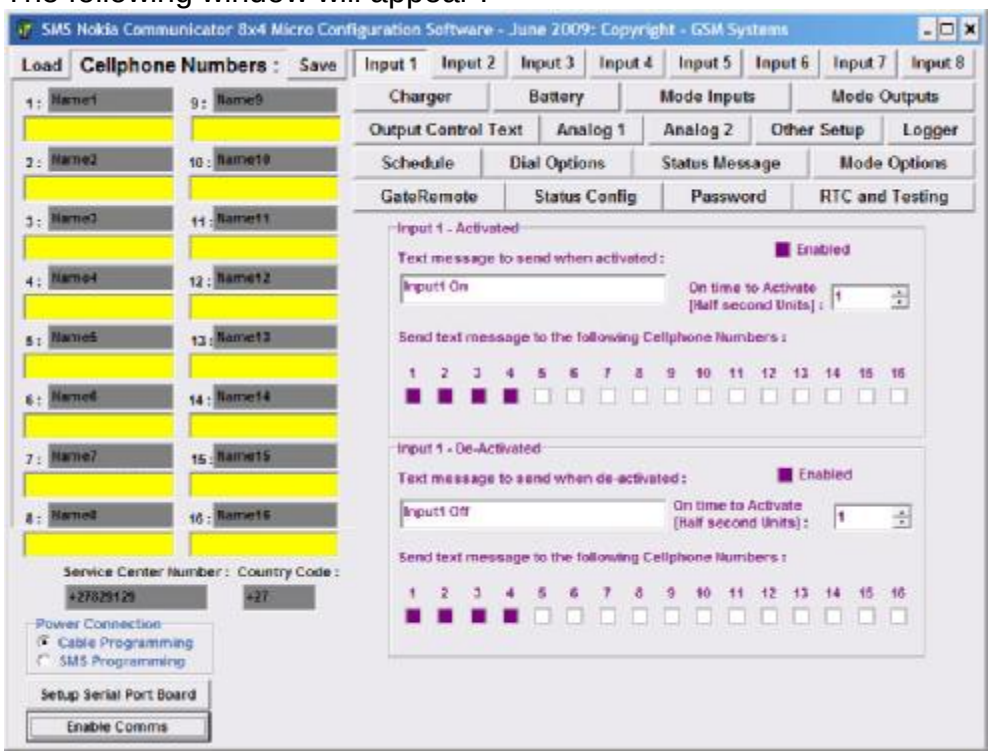
USB 2 Serial if serial port on PC

Programming Cable Layout:

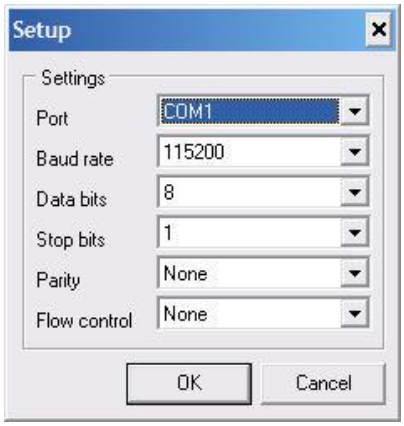
DB9 Female		DB9 Female
2	to	3
3	to	2
5	to	5

1. Connect the Cellcop 8x4N micro to the PC using the RS232 programming cable
2. Power-up the Cellcop 8x4N micro using a 12 V DC supply.
3. Run the supplied configuration software

The following window will appear :

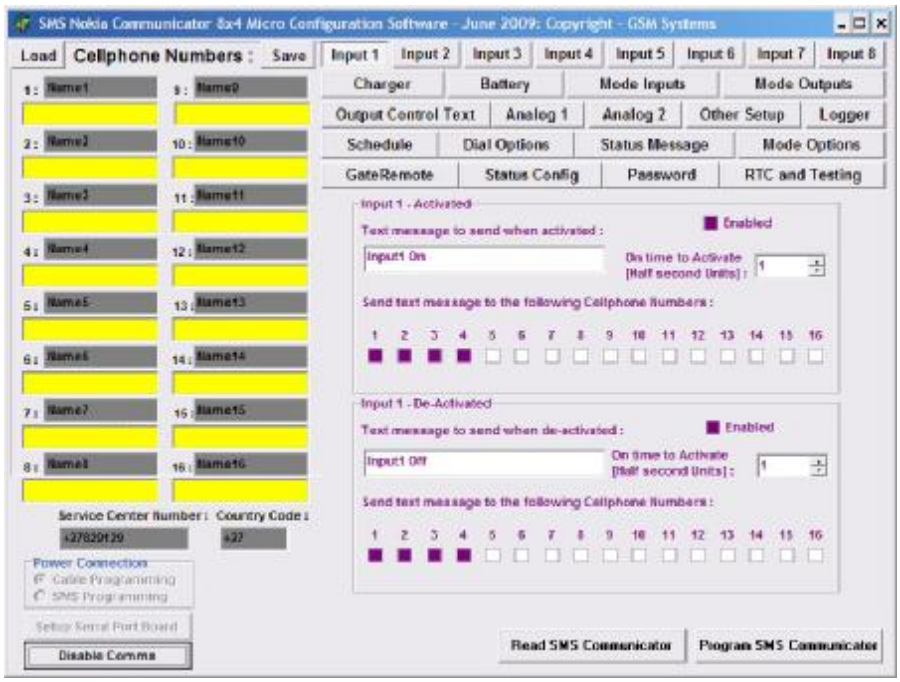


Select the serial port that the Cellcop 8x4N micro is connected to by clicking on the "Setup Serial Port Board Button". The following screen will appear [Next Page]:



Change the port to the port where the communicator is connected. Don't change anything else. Click OK when finished.

Click on the "Enable Comms Board button" to enable the communications



Click the "Read SMS Communicator button" to read the information from the GSM communicator. The progress bar will progress from 0 to 100 % as the information is read from the communicator. If the progress bar gets stuck at 5 % then you selected the wrong port or the configuration cable is not connected or the configuration cable is faulty.

Change the information and parameters to fit your setup

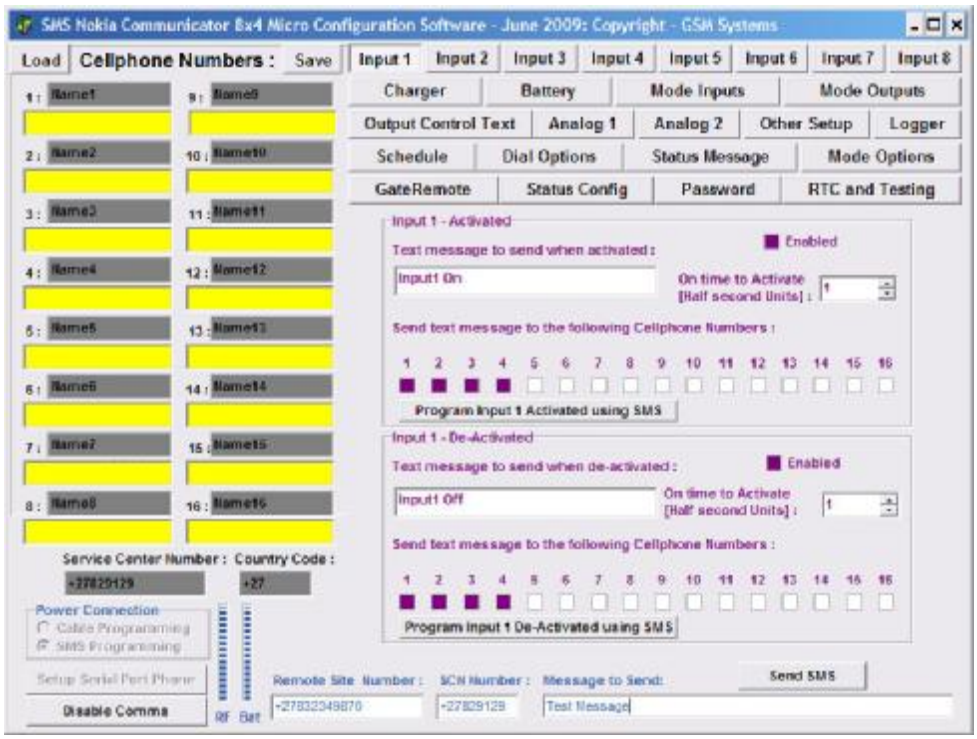
- Service Center Number
- Country Code
- Cellphone Numbers and names
- Input Parameters
- Output Parameters
- AC Power monitor parameters

4. Click "Program SMS Communicator button" to program your setup into the unit
5. Switch of the power
6. The unit is now ready for installation

2.2.3 SMS programming:

1. Connect a Nokia 5110 Cellphone to the PC using a Data cable.
2. Start the programming software
3. Select SMS programming
4. Select the correct serial port where the cellphone is connected.
5. Enable communications
6. Enter the number for the unit that must be programmed
7. Enter the service center number for the sim-card used by the programming phone [Next to Remote Site Number].
8. Program each section by clicking the buttons that appear.

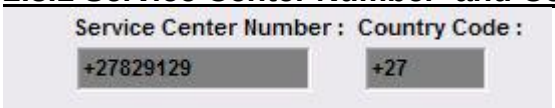
The cellphone numbers are programmed by right click on the cellphone number block. A menu will appear and the numbers can be programmed by clicking the menu item. Right click on the Service Center number text box to get South African service center numbers. The Remote site will reply with the section programmed .



Note: The password that is programmed on the board must be used or it will not accept programming messages. The password can be changed using cable programming. If the Links 1,2,3 and 4 is plugged in before the board is powered then the password will be reset to 12345.

2.3 Programming Parameters:

2.3.1 Service Center Number and Country code:



The country code is used with missed calls. The country code for South Africa is +27

Service Center number for the sim card used by the communicator must be entered. If not entered correctly the unit will not send messages.

MTN :
Contract Sim Card: +27831000002
Pay as you go sim card : +27831000113
Vodacom :
+27829119 or +27829129

Hint: Right click on window to select the SCN for South African Networks.

2.3.2 Cellphone Numbers and names:

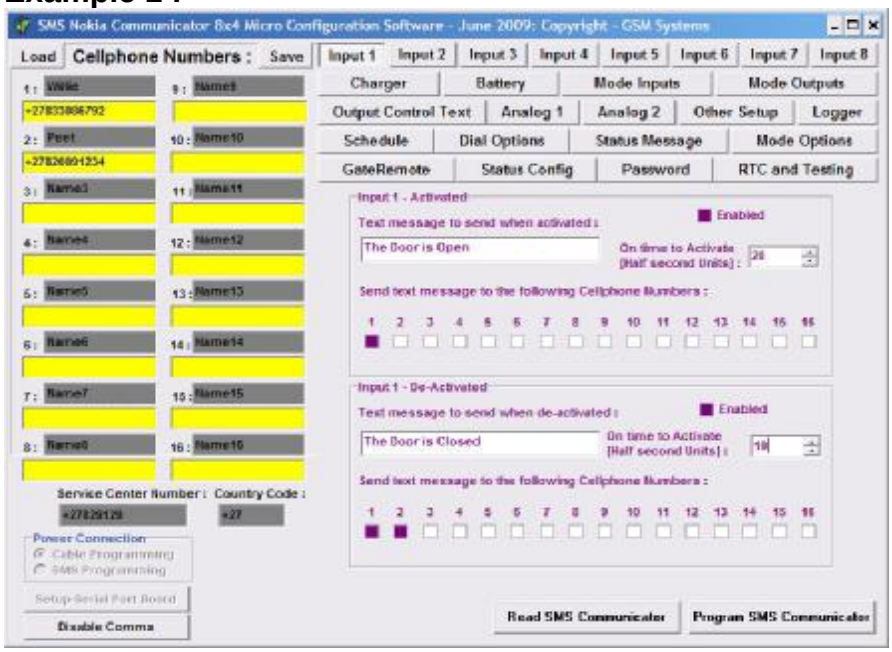
Enter the names and numbers to be used by the system.

NB: Numbers must be entered in the international format. Replace 0 with country code. Example: 0825436789 must be +27825436789 on South African Networks.

2.3.3 Input parameters:

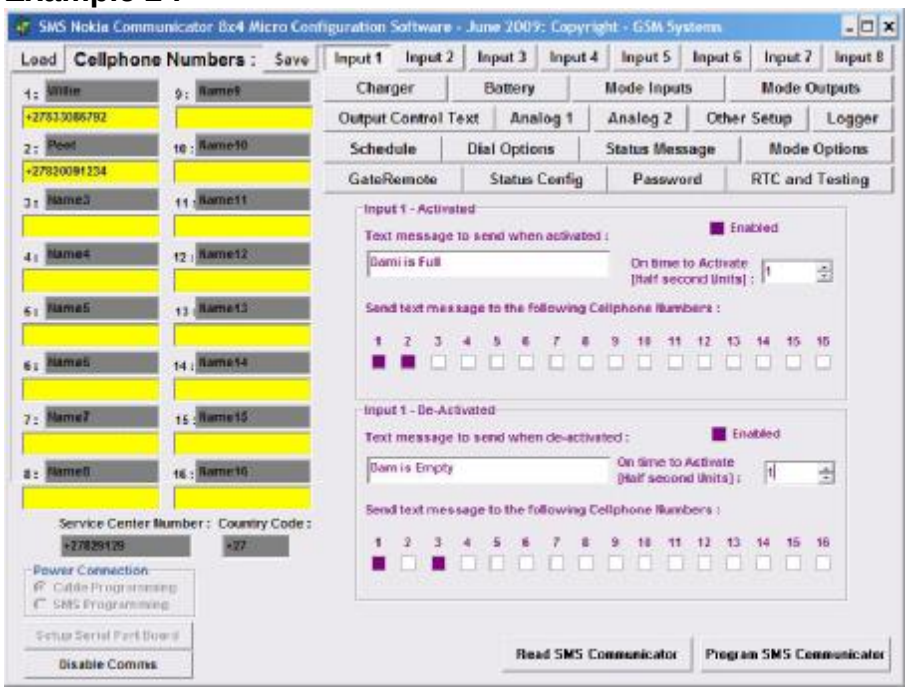
Inputs have a on and off state. The on state is when the input is linked to GND and the off state is when the link to GND is open. By using Monitoring modes you can enable and disable monitoring on an input. (See monitoring modes for details) The on time to activate is a delay that can be programmed to delay the sending of messages.

Example 1 :



Input 1 is setup to send a SMS containing text “The Door is Open” to Cell phone number 1 only if the input 1 was on for 10 seconds. A SMS “The Door is Closed” will be send to Numbers 1 and 2 when Input 1 go Off for 5 seconds.

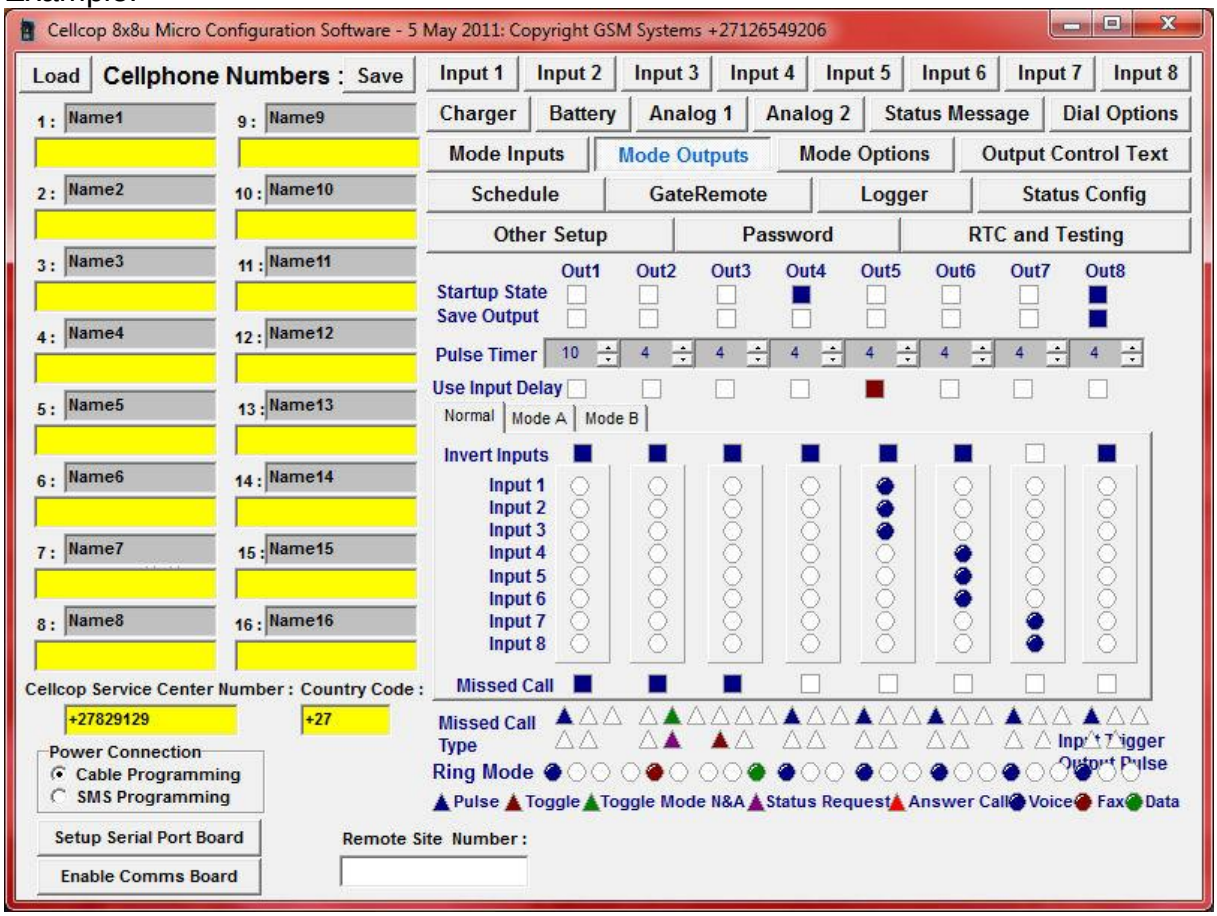
Example 2 :



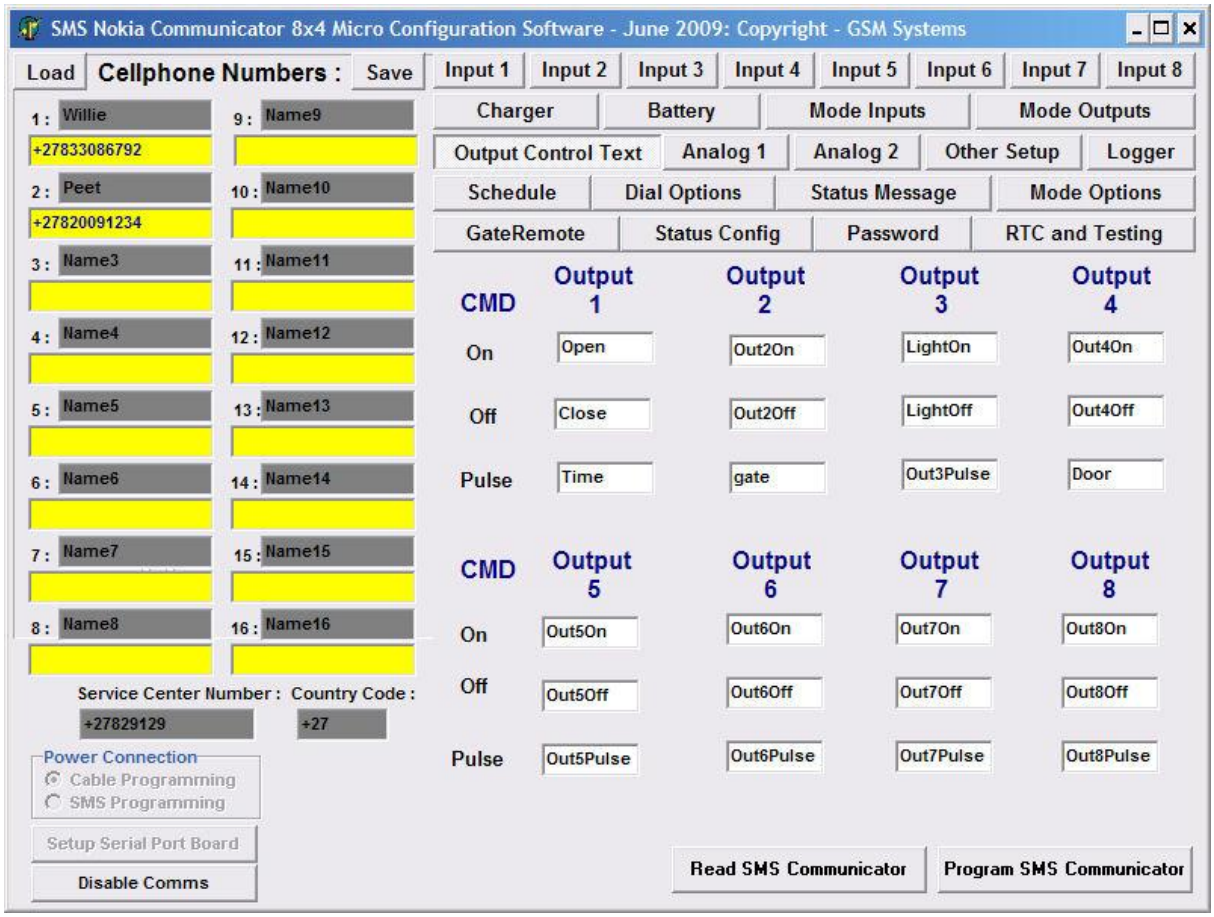
Input 2 will send an SMS to Cell numbers 1 and 2 when Input 2 go on containing the text “Dam is Full” and it will send an SMS to Cell numbers 1 and 3 when Input2 go off containing the text “Dam is Empty”

2.3.4 Setup Outputs:

Outputs are used to control things remotely. The outputs on cellcop is designed to switch a 12 V DC relay.
Outputs can be activated using SMS or a missed call. The following pages are used to setup the missed call functionality:
Example:

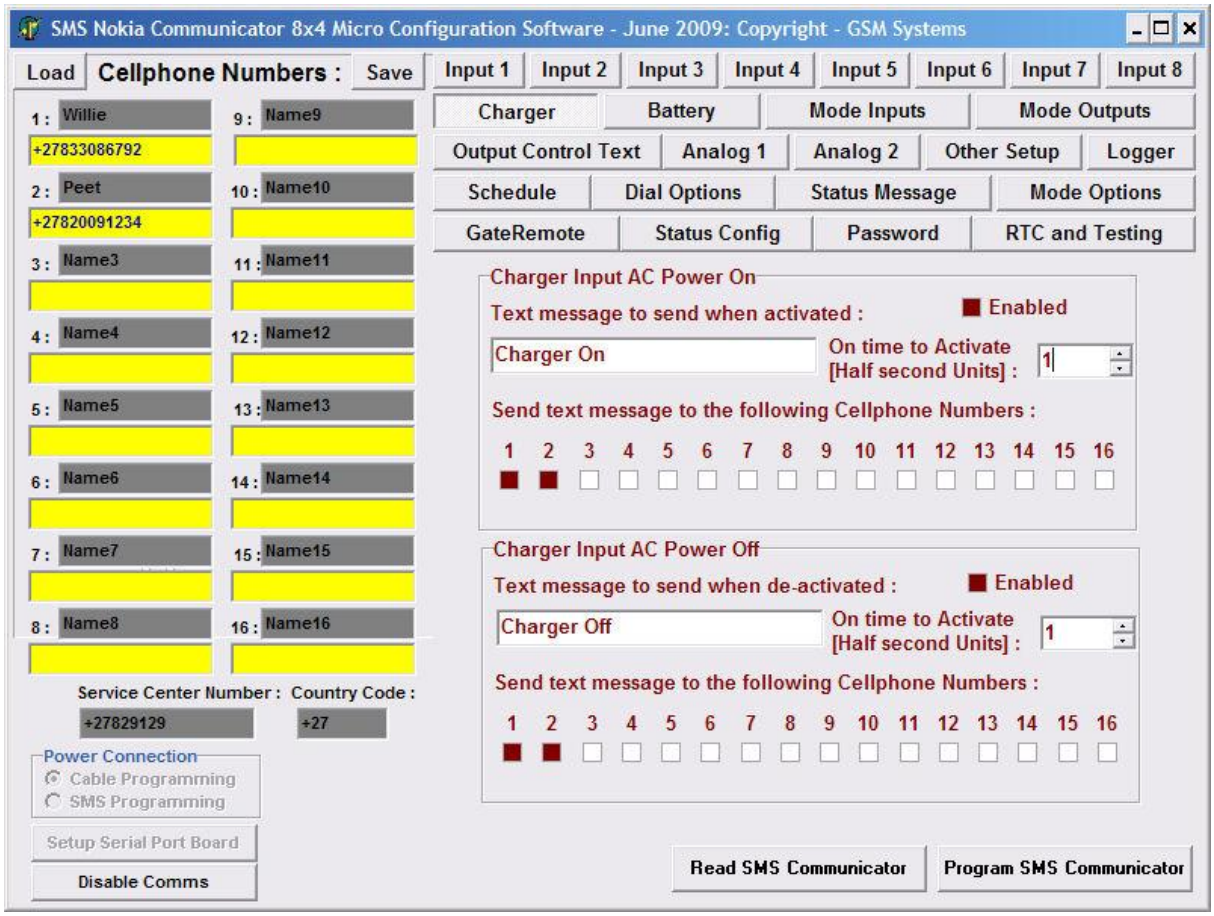


The startup state sets the state of an output when the board is switched on or reset-ed. In this example outputs 1,2,and 3 will start in the off state and output 4 in the on state. The pulse timers is the time that a output will be switched on when a pulse command is issued to the board. In this example Output 1 will be switched on for 5 seconds and output 2,3 and 4 will be switched on for 2 seconds. A call from a cell phone number with control rights can be used to control certain functions. In this example output 1 will switch on for 5 second when a voice call is received from a cell phone with control rights. Output 2 will toggle the mode when a fax call is received and output 3 will Toggle the status of the output when a data call is received. Note for the different call types you must get the different numbers from your service provider. Only MTN contract phones allow different numbers in South Africa. NB: The caller ID must be on and only numbers with control rights will be able to control the outputs using a missed call. Control rights setup is available on the Other parameters page (2.3.7). SMS controls on outputs see SMS commands section. Custom text can be used to control outputs (See next page). Output follow input can also be used to control outputs. In this example Output 5 will trigger for the pulse time when inputs 1 or 2 or 3 off alarm messages are triggered. Output 6 will switch on when inputs 4 or 5 or 6 are off (invert inputs). Outputs 7 will switch on when inputs 7 or 8 is on. If you need to keep the output state even if the board is switched off and on to the last switched state use the save output function.

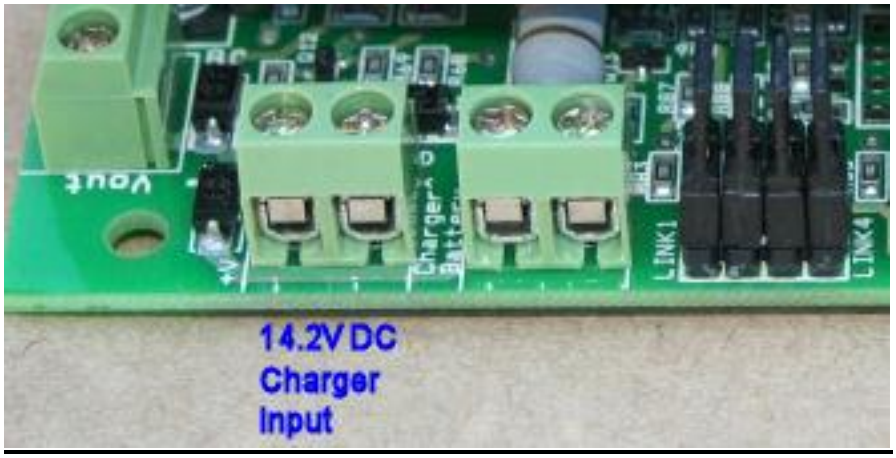


In this example output1 will switch on when a SMS from a cellphone number with control rights is received containing the word “Open” and will switch off when the word Close is received. Output 2 will switch on for the pulse time when the word “gate” is received from a number with control rights.

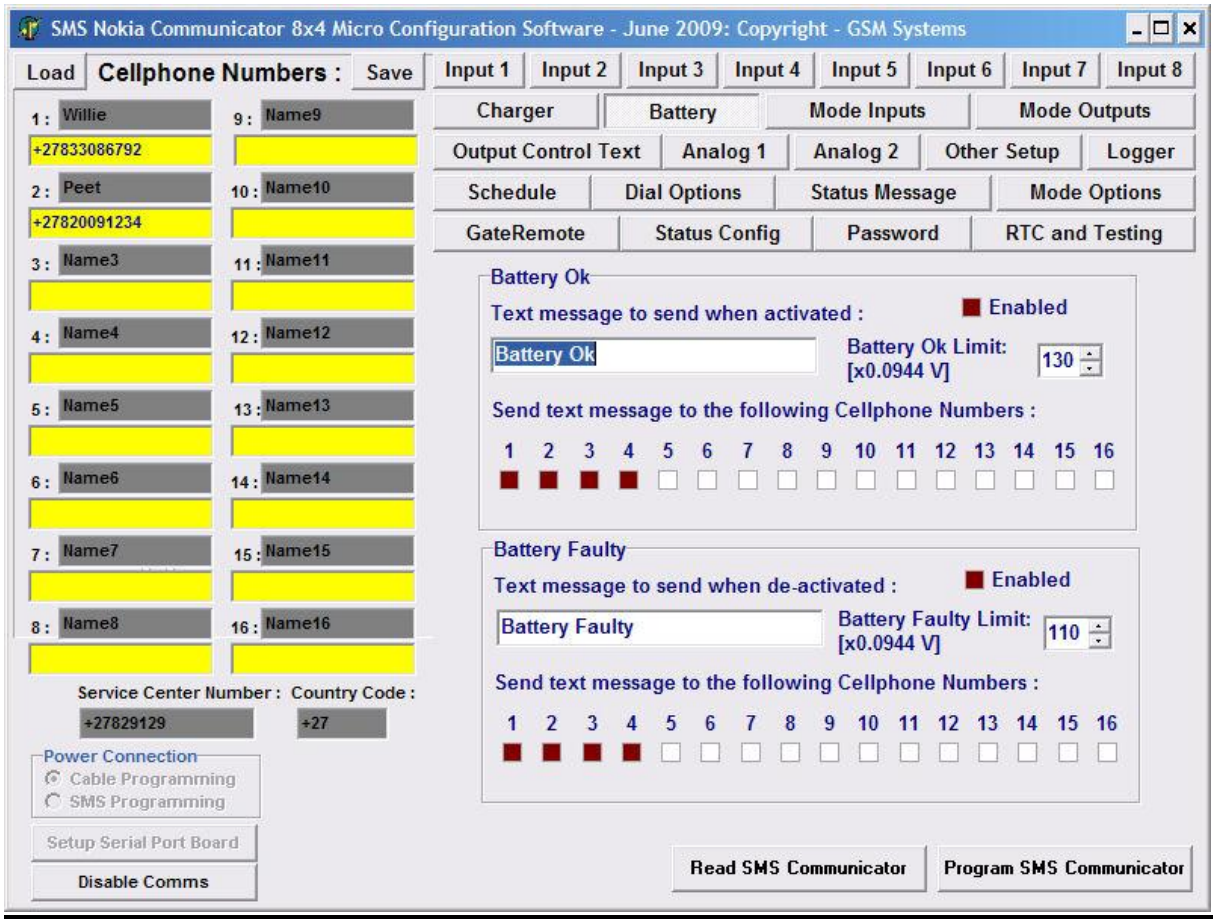
2.3.5 AC Power monitor parameters charger Input:



The communicator will send an SMS to cellphone number 1 and 2 containing “Charger On” when the charger is connected to charger input and its switched on. It will send an SMS to cellphone number 1 and 2 containing “Charger Off” when the charger is switched off.

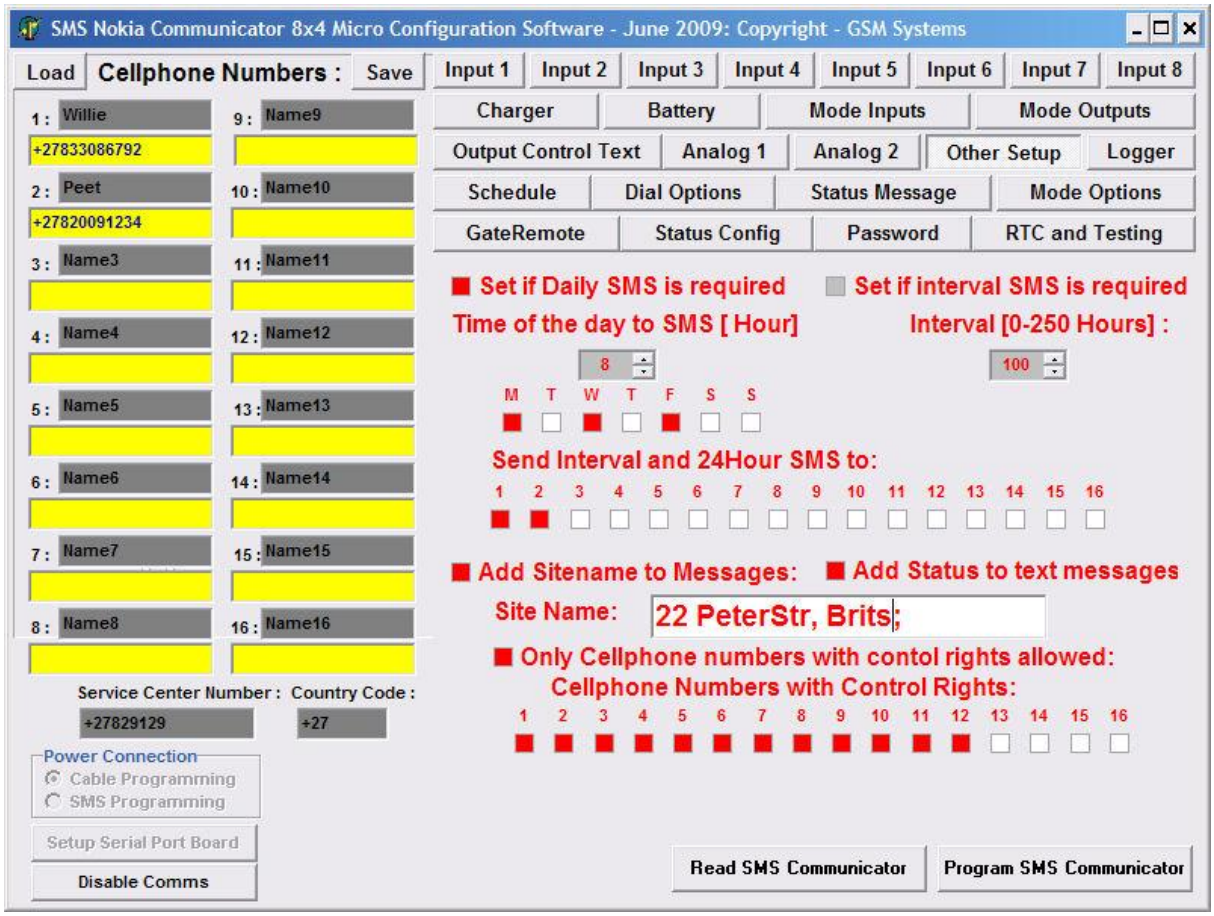


2.3.6 Status of the battery:



The battery status will be tested once every 24 hours. If the battery voltage is above the predefined voltage it will send a message “Battery Ok” to the predefined cellphone numbers. If the battery voltage is below the predefined voltage it will send “Battery Faulty” to the predefined voltage. The current status of the battery is determined at start-up and only changes in state will be reported. This mean that you will not get an SMS every 24 hours telling you the state of the battery but only when the state changes. The default voltage for Battery OK is 130 * 0.0944 = 12.27 V and For Battery faulty 110* 0.0944 = 10.38V. The battery voltage is checked continuously when the charger is off.

2.3.7 Other parameters:



The first setting is to get a status message every day at the time set. In this example you will get a status SMS every Monday, Wednesday and Friday at 8h00 to Numbers 1 and 2. This is also the time when the battery is checked daily.

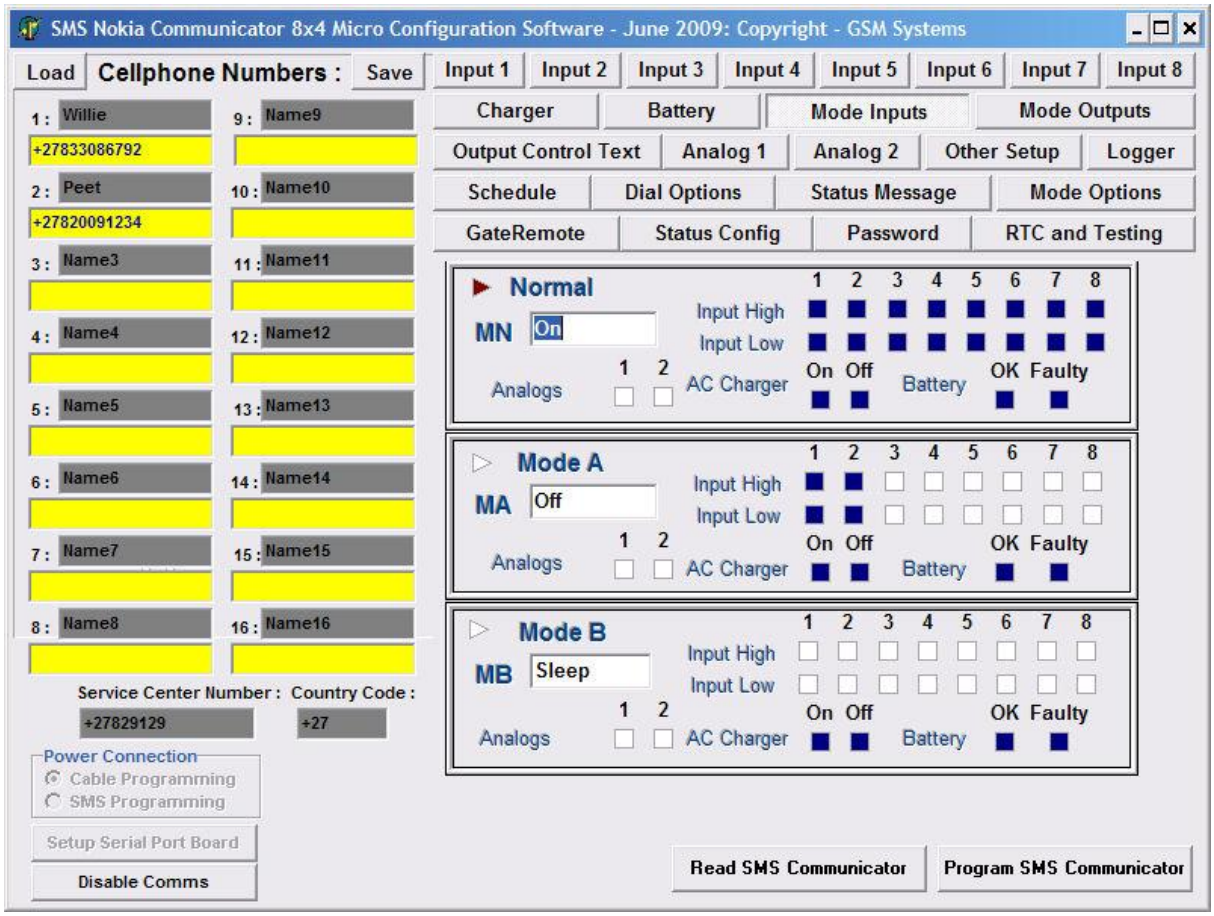
The interval SMS send an SMS to the selected cell phone numbers on the interval specified. The interval can be up to 250 hours. The time is counted from when the board is reseted or switched on.

Add the site name to the SMS messages send. If the box is ticked then the site name specified here will be added to all messages.

Add status to text messages - If this is ticked the status as configured on the “Status Config Page” will be added to the text message send.

The cellphones with control rights are identified here. Control rights give access to controlling outputs (SMS and ringing in) and to request status. This has no effect on the Gate remote function. The Gate remote function only work with the Gate remote numbers.

2.3.8 Setup Monitor mode



The system can be programmed to monitor inputs according to the selected monitor mode. Setup the monitor mode using the configuration software. Modes can be changed using SMS. The monitor mode can be used to control what is monitored in a specific mode. As an example you can define Mode N to monitor all inputs, ModeA be to monitor only certain inputs and Mode B to monitor nothing. Then by switching the monitoring mode using the mode switch command u can control the monitoring.

Switch monitor mode by SMS Commands

"MN" or "On" – Set to mode N
"MA" or "Off"– Set to mode A
"MB" or "Sleep" Set to mode B

"On", "Off" and "Sleep" is for this example. You can configure your own text.

If the second character of the Command is a Capital it will SMS the Status back to the number from where the command came.

Switch Mode using Scheduled Commands

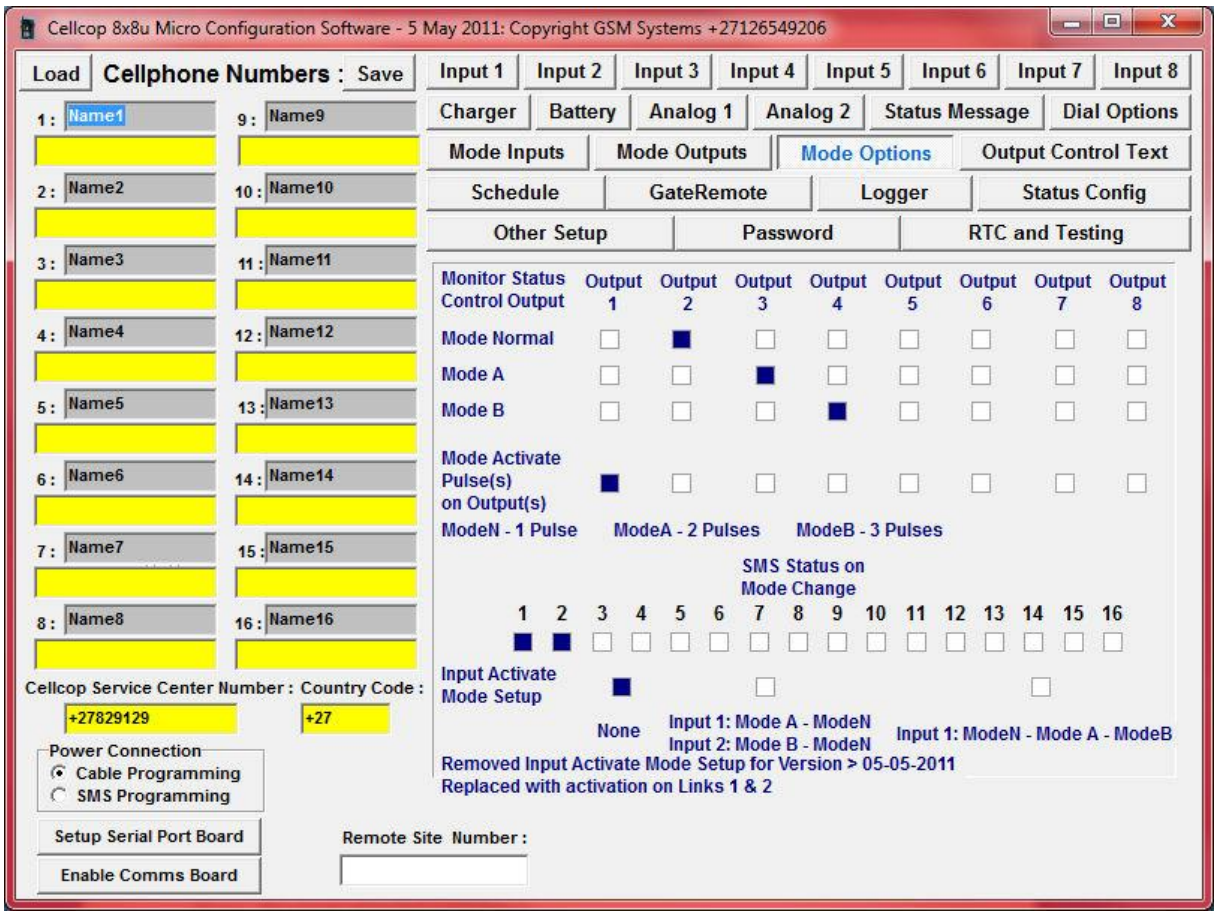
See "Scheduled Commands Page"

Show the selected Mode

The selected mode can be seen using LED 3 or the LCD
LED3 : Mode N – Off; Mode A – Flash; Mode B – On

The LCD can also be configured to show the selected mode:
Mon:On;

2.3.9 Setup Monitor Status Outputs



This setup is used to control the way that outputs switch on to indicate the monitor mode currently selected. In this example output 1 will generate pulses when you change the monitoring mode using the inputs 1 and 2. Output 2 will go on when Mode normal is selected. Output 3 will go on when Mode A is selected and output 4 will go on when Mode B is selected.

The bottom you select how the triggering of an input change the monitoring mode. Three options are available. This function is deleted after version 05-05-2011 and replaces by triggers on link 1 and link 2.

None – No mode changed using inputs
Input 1 & Input 2 – Input 1 triggering select between mode A and mode N. Input 2 triggering select between mode B and mode N.
Input 1 only – Input 1 triggering will select between Mode A, Mode B and ModeN sequentially

From version 05-05-2011 you can short Link1 and Link 2 to select a specific monitor mode. This will allow you to connect a remote receiver to link 1 and 2 and use remotes to select a specific monitor mode.

Pulse on Link1 will select mode N while a pulse on link 2 will select mode A. Mode B van be selected by shorting both Link 1 and link 2.
Mode changes can trigger the Status message to the selected numbers. In the example any mode change will send status messages to numbers 1 and 2.

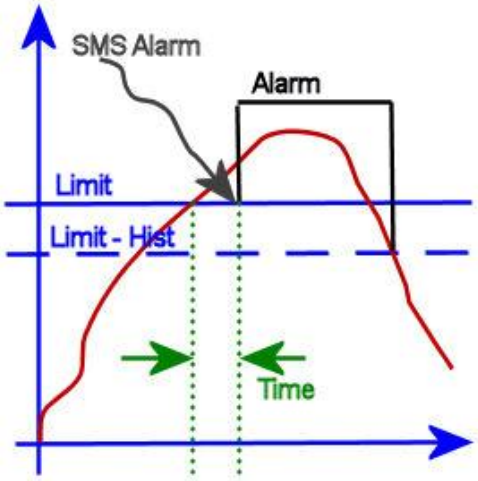
2.3.10 Analog Inputs 1 & 2

Analog inputs are available by using a Analog Board connected to the serial port. The Analog board will communicate the measurements continuously using serial communications to the Cellcop. The Analog measurement boards available are:

a. 1 Temperature measurement [-55 to 125 Deg C]
b. 2 Temperatures measurements [-55 to 125 Deg C]
c. 2 Voltage measurements 0-5 V [0-1023]
d. 1 Temperature and 1 Humidity Measurement [-55 to 125 Deg C] and 0 – 100%

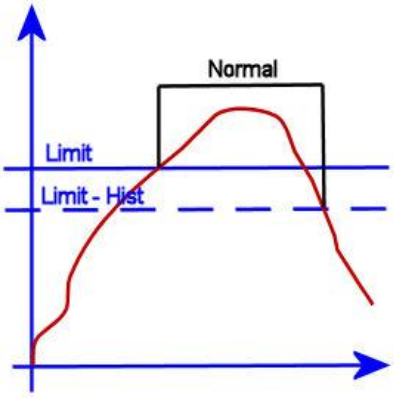
Special Analog boards can be designed on request.

The analog is a measurement using a 16 bit Signed value. The measurement can be scaled using a straight line equation. Two high limits and 2 low limits per analog can be configured.

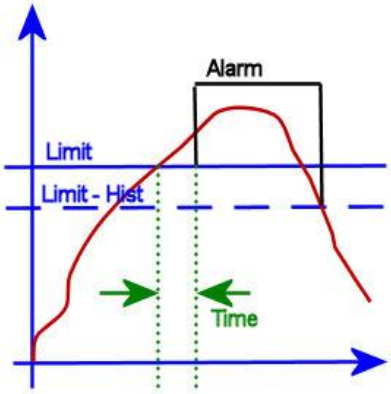


This picture indicates the principle of the analog alarm and warning SMS. The alarm will be SMS-ed when the Analog value exceeded the “Limit” for a “Time” period. The alarm will reset when the Analog value go below the “limit – Hysteresis”.

The outputs can be triggered when the alarm occur using 2 algorithms. The next pictures explain the output follow of the analog alarms based on the algorithm.



Normal Algorithm

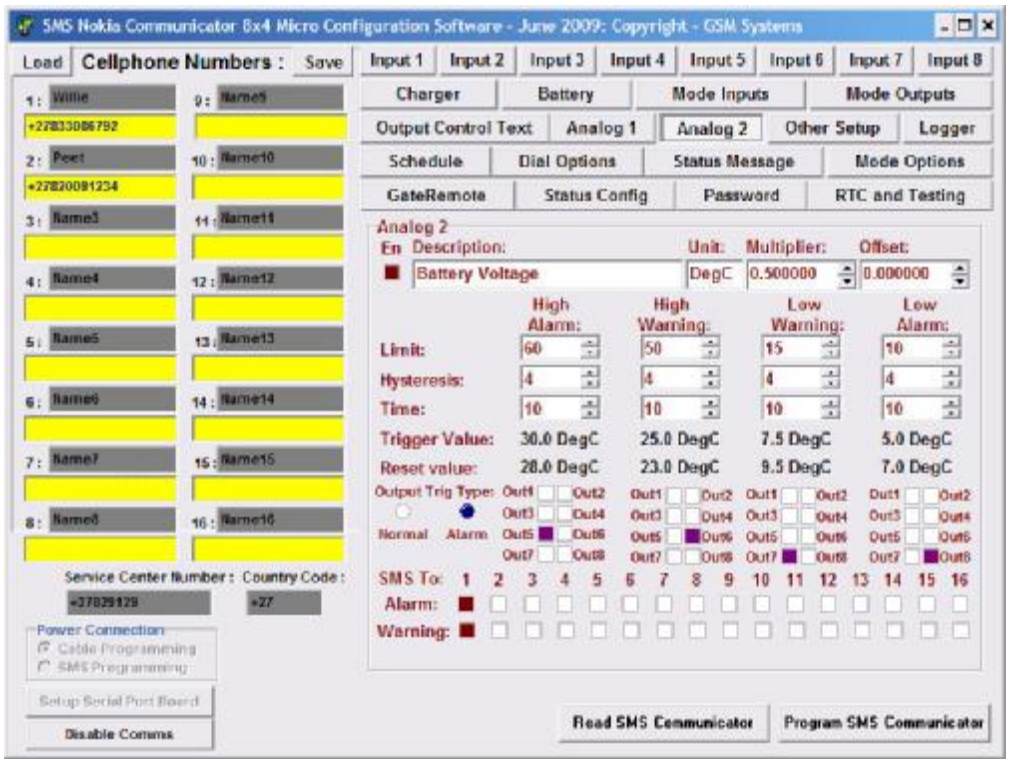


Alarm Algorithm

Configuring the Analogs:

Example 1:

The value from the analog board will be multiplied by 0.5 to get the temperature. The alarm and warning limits are set as indicated on the page. The outputs will trigger based on the Normal algorithm. The Alarms and warnings will be sent to Cellphone 1.



Example 2:

The value from the analog board will be multiplied by 0.5 to get the Voltage. The alarm and warning limits are set as indicated on the page. The outputs will trigger based on the Alarm algorithm. The Alarms and warnings will be send to Cellphone 1.

To be able to use analog 1 and 2 u need to use the analog add-on module. The analog add-on module is available in the following configurations:

Configuration Name	Analog1	Analog 2	Notes
Dallas Temperature	DS18b20 Temperature probe	DS18b20 Temperature probe	Sensors available as DS18b20Probe
Sensirion sensor	Temperature	Humidity	Sensors available as SensirionProbe
Voltage Input	0-5V Input	0-5V Input	Use own sensors
Current Input	0-20mA	0-20mA	Use own sensors
Voltage and Current Input	0-5V Input	0-20mA	Use own sensors

Analog add-on part numbers:

CPAnalogAddon-Dallas: Dallas Temperature

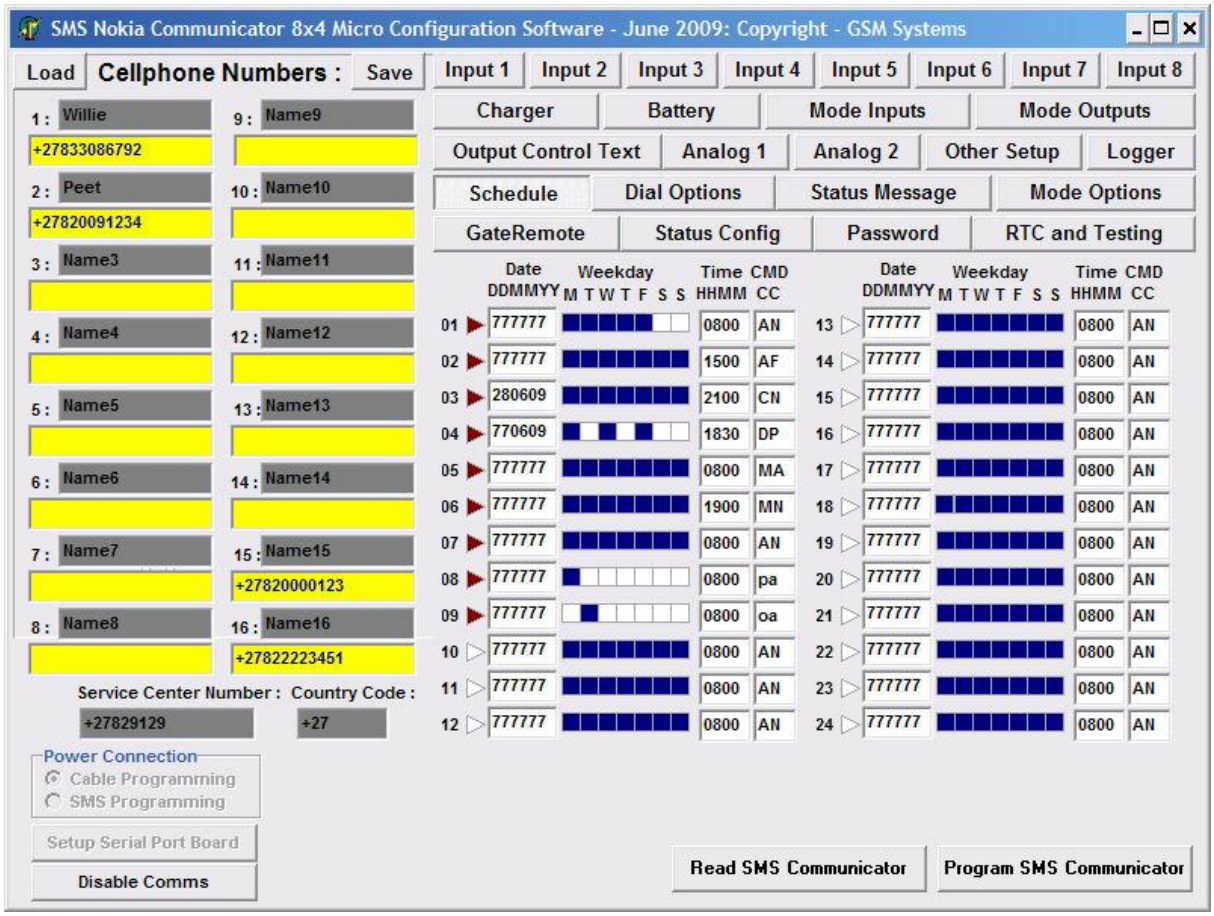
CPAnalogAddon-Sensirion: **Sensirion** sensor

CPAnalogAddon-VV: Voltage Input

CPAnalogAddon-II: Current Input

CPAnalogAddon-VI: Voltage and Current Input

2.3.11 Schedule Commands

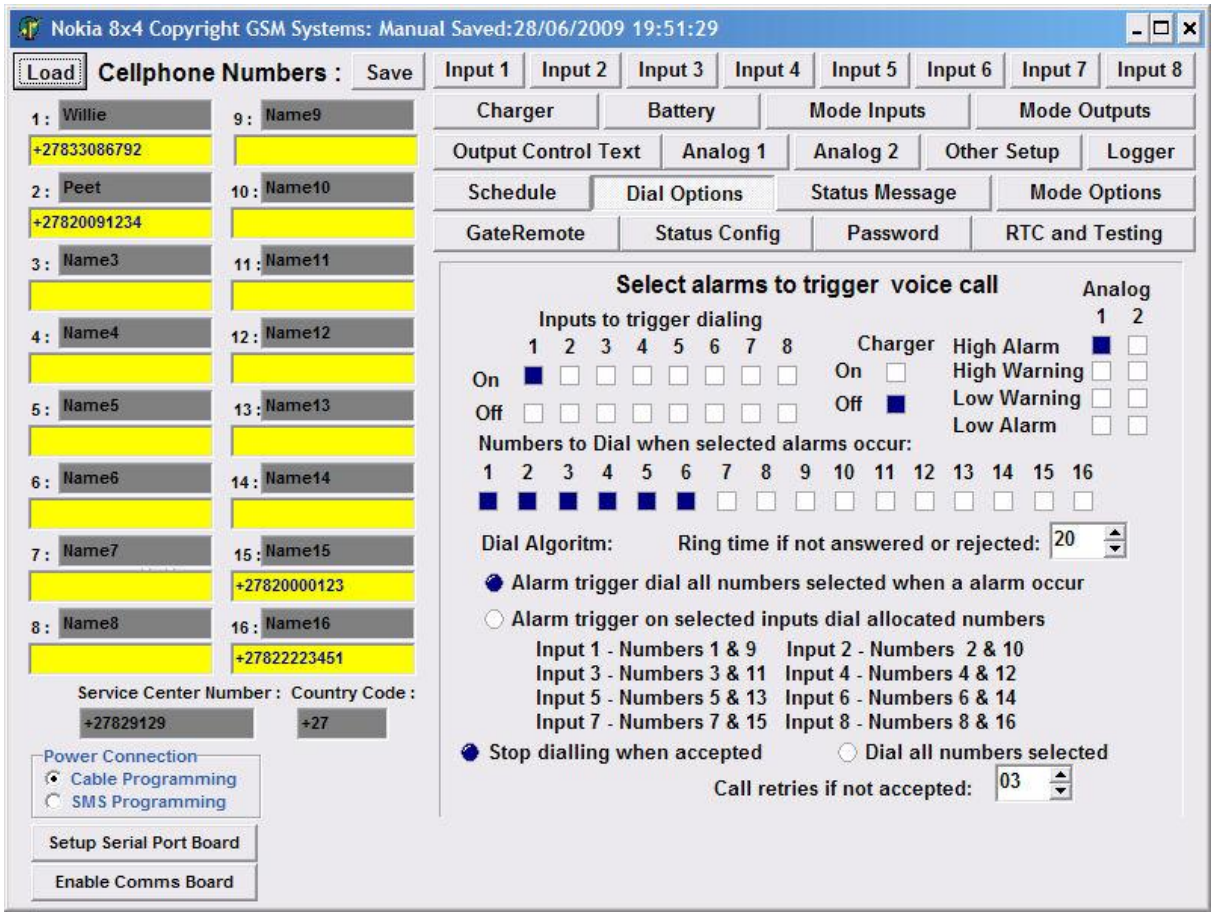


Scheduled commands can be used to schedule a command, Mode change, copy phone numbers etc based on a date/time. “77” in any date or time field ignore that field in matching

In this example the following will happen:
1: Every Monday to Friday 08:00 output 1 will be switched on.
2: Every day 15:00 output 1 will be switched off.
3: On the date 28/06/09 21:00 Output 3 will be switched on.
4: Every Monday, Wednesday and Friday of June 2009 at 18:30 Output 4 will be pulsed.
5: Every day 08:00 the unit will switch monitoring mode to Mode A.
6: Every day 19:00 the unit will switch monitoring mode to Mode N.
7: Every day at 08:00 output 1 will be switched on.
8: Every Monday at 0800 copy Cellphone 16 to 1
9: Every Tuesday at 0800 copy Cellphone 15to 1

Commands available:
AN,BN,CN,DN,EN,FN,GN,HN – Switch outputs 1-8 On
AF,BF,CF,DF,EF,FF,GF,HF – Switch outputs 1-8 Off
AP,BP,CP,DP,EP,FP,GP,HP – Pulse output 1-8 for the pulse time
MN,MA,MB – Switch to Mode N, A and B
RV,RP – Enable Vehicle Gate, Enable Pedestrian Gate
Rv,Rp – Disable Vehicle Gate,Disable Pedestrian Gate
SM – SMS to the numbers configured on the Interval numbers on the “Other Page”
xy where x and y can be ‘a’-‘p’. Copy number x to number y.
a-p: Number 1 to Number 16

2.3.12 Voice dial on alarm function

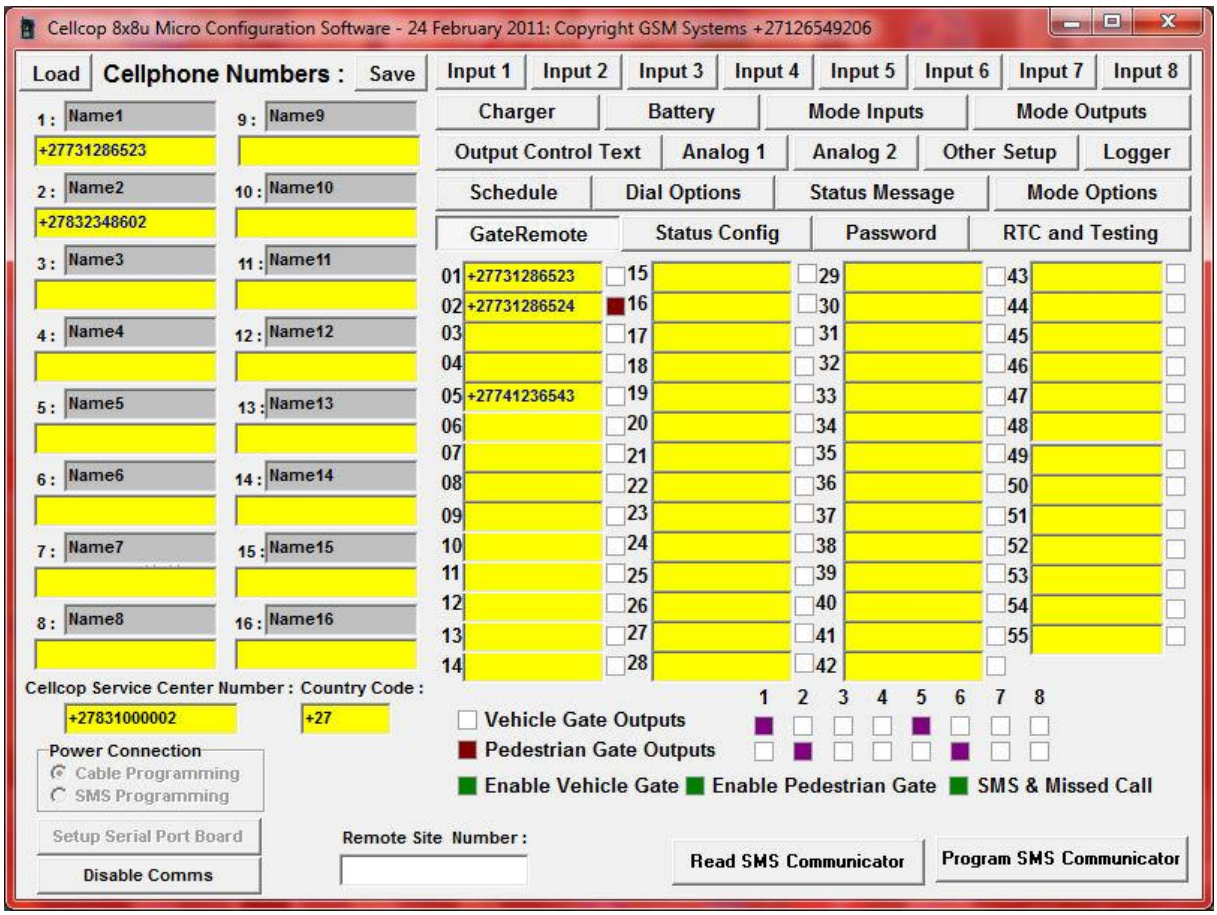


This function will initiate a voice call from the Cellcop to the configured numbers when any of the selected alarms is triggered. The number of dial retries can be specified as well as the ring time. The dialing can be stopped by accepting the alarm [Answer and Drop the call] Depending on the selected algorithm the dialing will stop or continue with the next configured number and skip the retries.

Example:

Input 1 On, Charger Off and Analog 1 High alarms will trigger voice dialing to Numbers 1 to 6. It will try each number 3 times if not accepted. The moment its accepted it will stop dialing. The ring time configured is 20 Seconds.

2.3.13 Gate Remote Function



The Gate remote function will trigger Configured Outputs for the [Vehicle] or [Pedestrian] when a missed call or SMS is received from any number in the list. The SMS can be disabled if required. “Please call me” will work as a SMS trigger.

Example:

In this example 01 and 05 will trigger [Vehicle] outputs and 02 will trigger [Pedestrian] outputs if the unit is called or when a SMS is received from a number in the list.

Both the Vehicle and Pedestrian outputs are enabled.

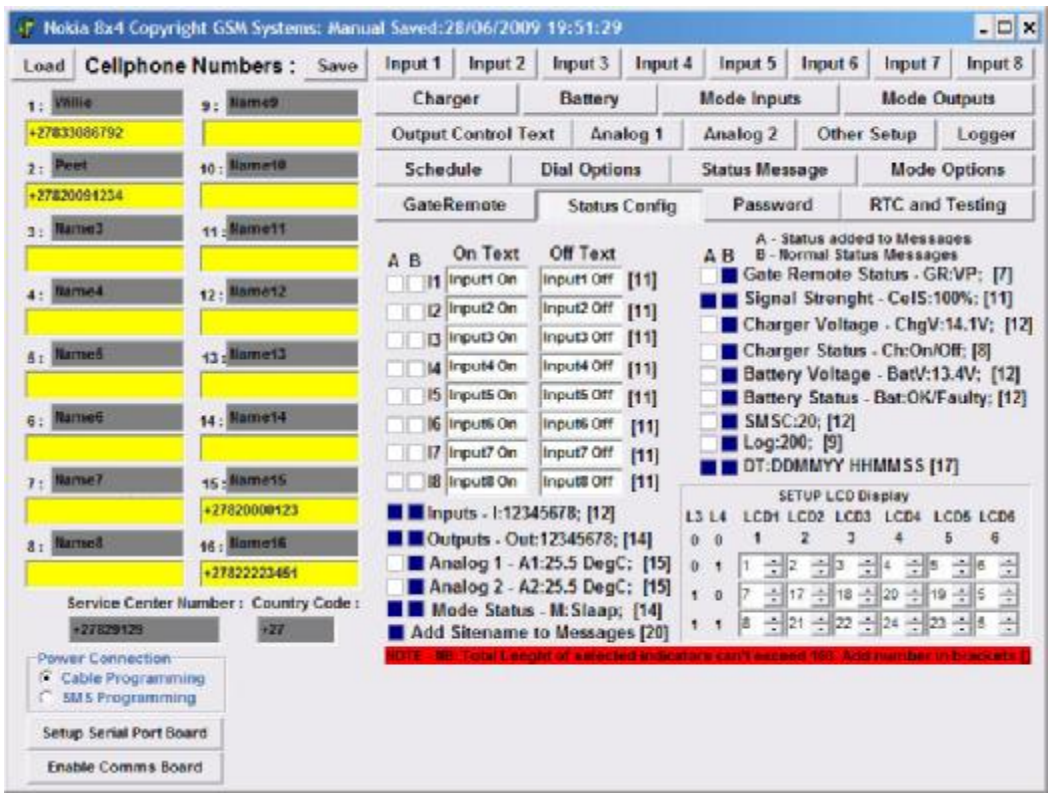
SMS commands to control the database:

Add a Number – Find number and update. If not present find empty space and store.
<Passwd><Space>GRADD<V or P><Number>
Example: 12345 GRADDV+278312345678

Delete a Number – Find number in database and delete it.
<Passwd><Space>GRDELNumber>
Example: 12345 GRDEL+278312345678

Delete all numbers
<Passwd><Space>GRALLDEL
Example: 12345 GRALLDEL

2.3.14 Configure Status Messages and LCD Display Output



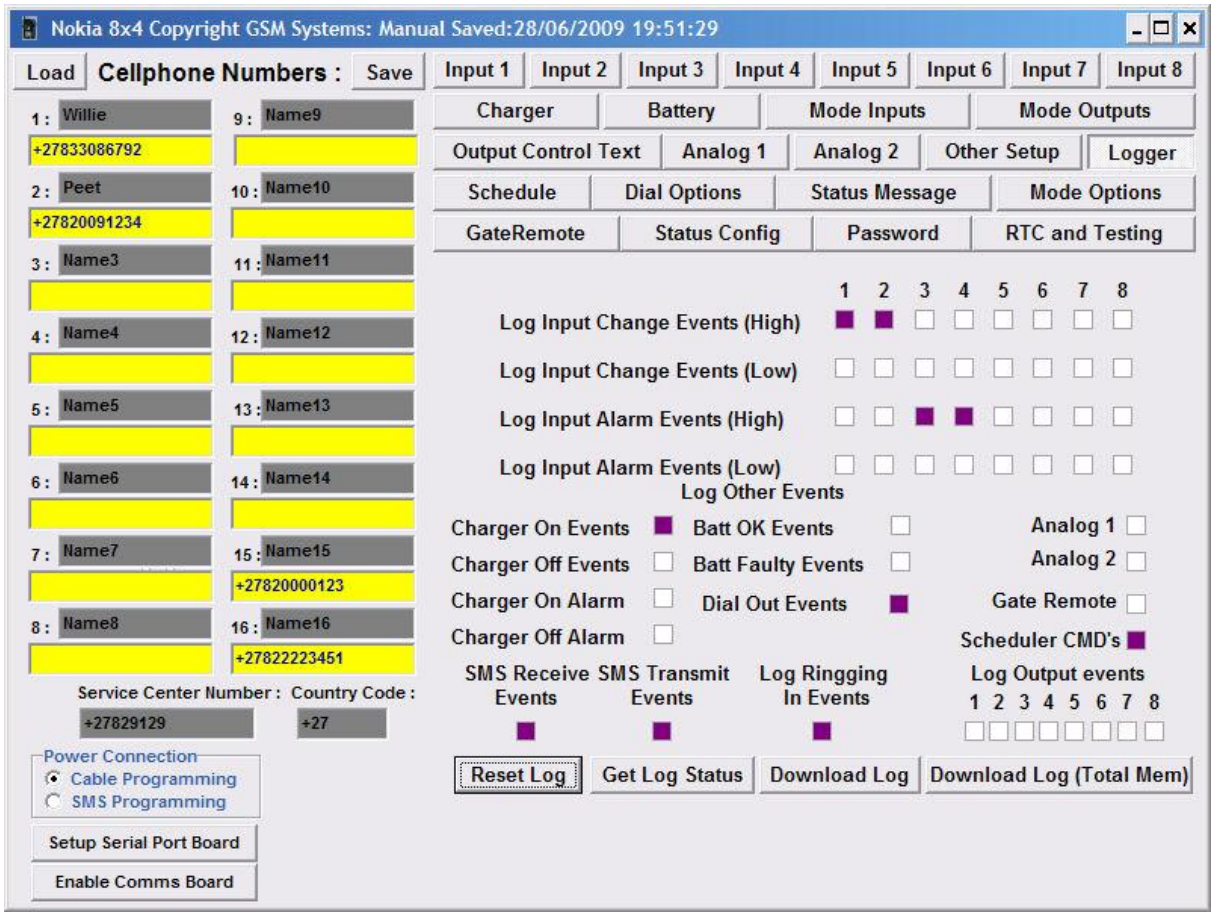
The Status message as well as the status added to other messages (Other Setup Page) can be con figured. The block ticked will add that information to the Status message. The first column is for the status added to normal messages while the second column is for the normal status message.

The LCD has 6 Lines can be configured to display different data on each line. Click on “Setup LCD Display” text to get all options. Link 3 and 4 is used to select different LCD pages. Page 1 is fixed and can’t be changed while pages 2-4 is fully configurable.
Example: When Link 3 is in and Link 4 is out it will display:
7:Line 1, 17:Line 2 ,18:Line 3, 20 :Line 4, 19:Line 5, 5:Line 6

LCD Add-on

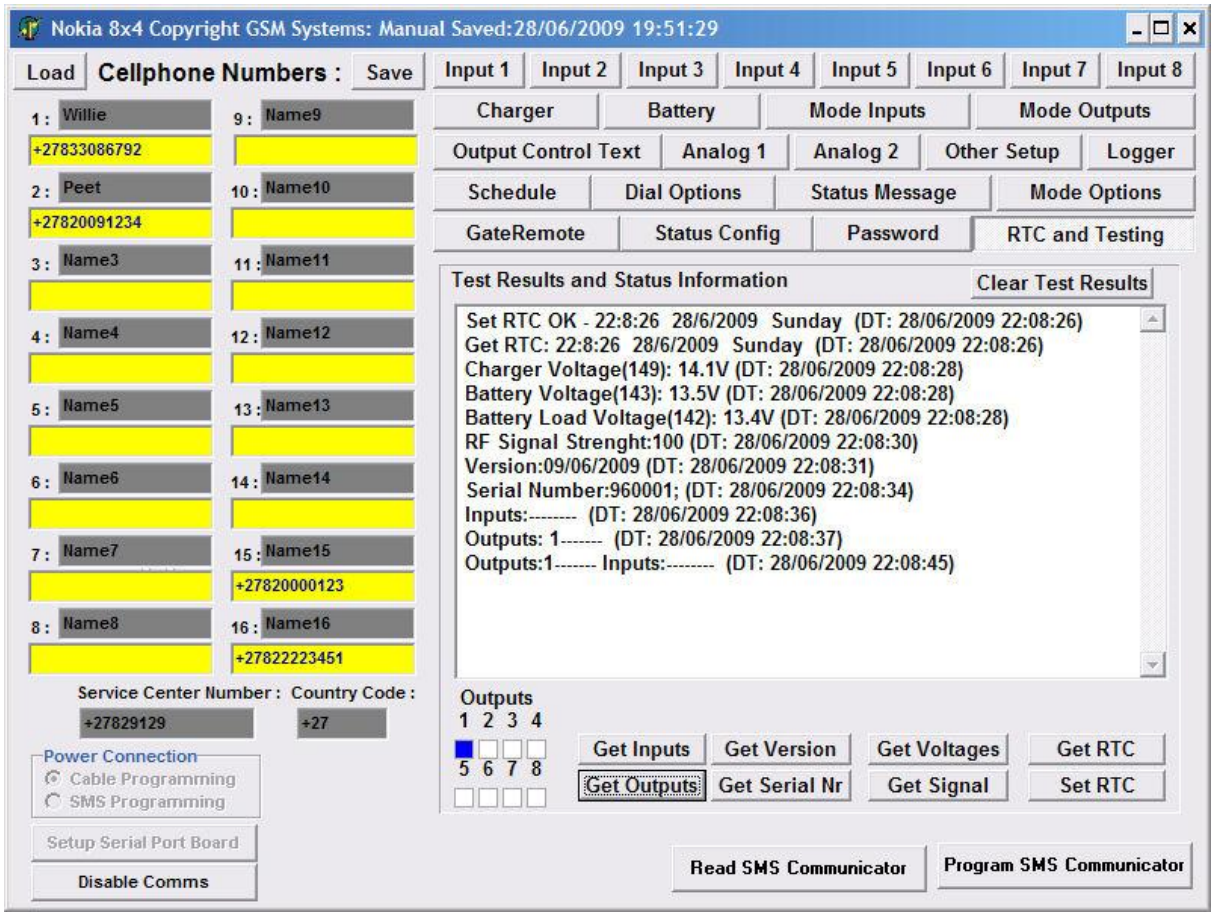
2.3.15 Logger Functions

The unit can be used to log events. Make sure that the date time is set on the phone connected to the board. Date and time can be set using the SETDT SMS Command.



Configure the Events to be logged using the configuration software. Download the logs using the configuration software by reading the Communicator and then download the log. The data will be stored in a comma delimited text file that can be imported into any spreadsheet like excel.

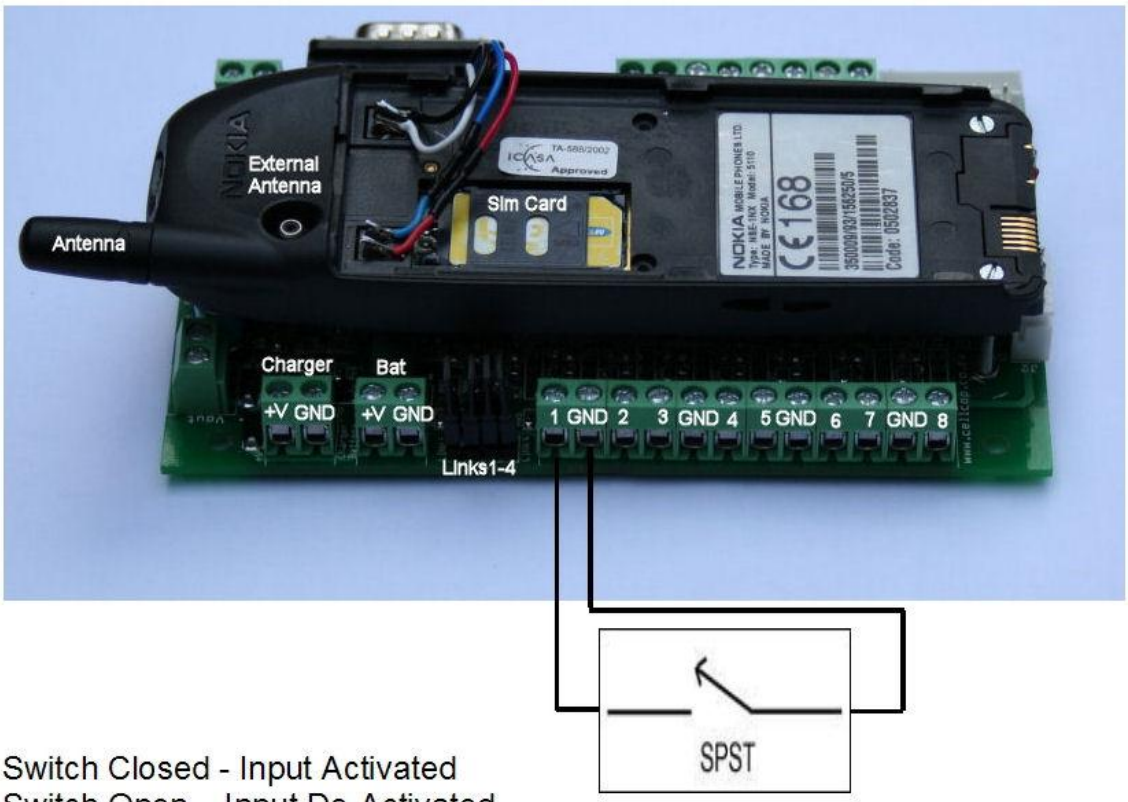
2.3.11 Set RTC and Test Board



Use this page to set the real time clock by clicking the Set RTC button. The RTC will be set to the Date and time of the PC. Use Get RTC to read the current RTC setting. Use Get voltages to read the current voltages. Get signal to read the current signal strength. All the replies will be displayed in the memo box.

3. Wire up the inputs to sensors

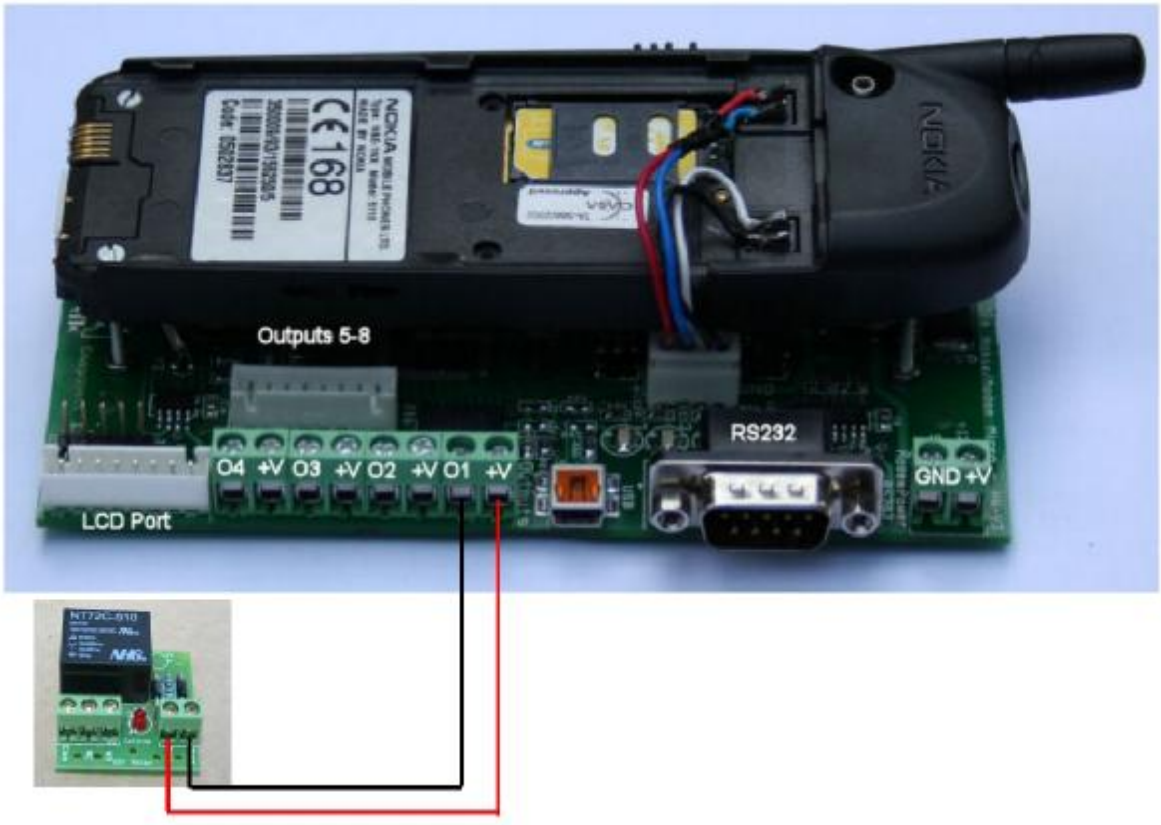
The inputs are designed to monitor a contact or a GND signal. The input is activated when a GND signal is presented at the input. The input is deactivated when the GND signal is removed from the input.



Switch Closed - Input Activated
Switch Open – Input De-Activated

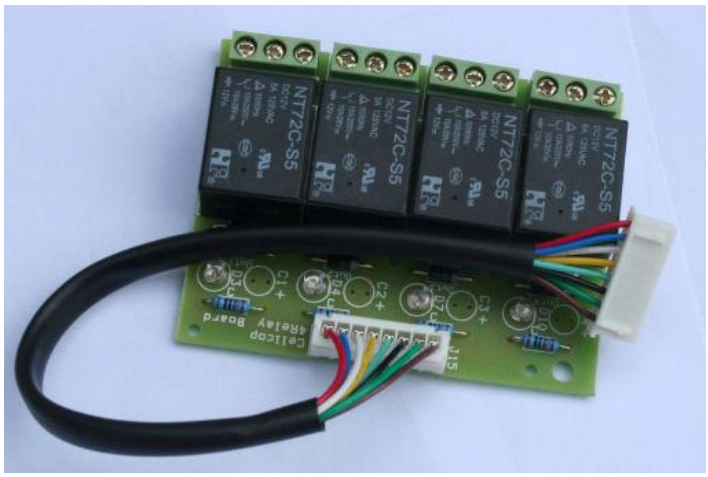
4. Wire outputs to devices to be controlled

The outputs are designed to switch a 12 DC relay. The output terminals use 2 pins. Pin 1 is a permanent 12V output, while pin 2 is a switched negative.



Output relay board:

1 relay add-on

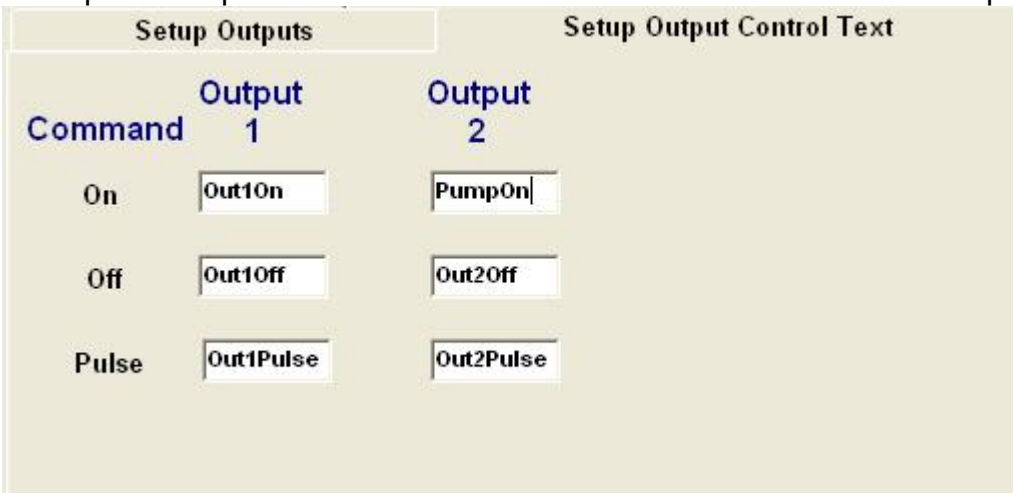


4 relay add-on

6. Controlling the GSM Communicator using a Cellphone

The GSM communicator can be controlled by sending SMS to the cellphone connected to the GSM communicator. If control rights are enabled, then only cellphones with control rights can send command sms's to the communicator. A custom text can be programmed to be used to switch outputs.

Example: "PumpOn" text send to the communicator will switch on Output 1.



The following messages can be send:

Message send	Action
S	Request the status of the SMS Communicator.
AN	Switch output 1 On
AF	Switch output 1 Off
AP	Put a pulse out on output 1
APCX	Pulse Output 1 for X half seconds and set the pulse time to X
BN	Switch output 2 On
BF	Switch output 2 Off
BP	Put a pulse out on output 2
BPCX	Pulse Output 2 for X half seconds and set the pulse time to X
CN	Switch output 3 On
CF	Switch output 3 Off
CP	Put a pulse out on output 3
CPCX	Pulse Output 3 for X half seconds and set the pulse time to X
DN	Switch output 4 On
DF	Switch output 4 Off
DP	Put a pulse out on output 4
DPCX	Pulse Output 4 for X half seconds and set the pulse time to X
MN	Select Normal Monitor mode
MA	Select A Monitor mode
MB	Select B Monitor mode
CR	Reset SMS Counter

NB : Outputs can only be controlled with SMS if Output follow is None.
On the 2 character commands if 2nd char is a Capital letter then the Status message will be send back

6.1 Other SMS Commands

6.1.1 Set Date/Time on Phone:

<Passwd><Space>SETDT:HHMMSSWDDMMYY

HHMMSS – Time HH=Hour [00-23], MM=Minutes[00-59], SS=Seconds[00-59]
W – Weekday 0=Su,1=Mo, 2=Tu, 3=We, 4=Th, 5=Fr, 6=Sa
DDMMYY – Date DD=Day [00-31], MM=Month[01-12], YY=Year [00-99]

Example:

12345 SETDT:2145261061005 will set Phone clock to 12:45:26 06 October 2005 and the day is Monday

6.1.2 Change Cellphone number using text SMS:

<Passwd><Space>ADDCN<XY><Cellnumber>

<Passwd> : Programming password
<XY> : 01 – 16 Cellphone position
<Cellnumber> : Cell phone number in the international format

Example:

12345 ADDCN01+27835551111 will program cell phone number 1 to +27835551111

6.1.3 Delete Cellphone number using text SMS:

<Passwd><Space>DELCN<XY>

<Passwd> : Programming password
<XY> : 01 – 16 Cellphone position

Example:

12345 DELCN01 will erase cell phone number 1

6.1.4 Set output pulse time and pulse the specific output:

APCX - Pulse Output 1 for X half seconds
BPCX - Pulse Output 2 for X half seconds
CPCX - Pulse Output 3 for X half seconds
DPCX - Pulse Output 4 for X half seconds

X can be any value from 1 to 60000

Example:

BPC200 – Will Set the pulse time for output2 to 200 and pulse output 2 for 100 seconds

6.1.5 Set multiple outputs with 1 SMS:

OUTabcdefgh

a - A – Switch on Output 1
a - Switch off Output 1
P - Pulse output 1
Any other character – No change on output 1

b - B – Switch on Output 2
b - Switch off Output 2
P - Pulse output 2
Any other character – No change on output 2

c - C – Switch on Output 3
c - Switch off Output 3
P - Pulse output 3
Any other character – No change on output 3

d - D– Switch on Output 4
d - Switch off Output 4
P - Pulse output 4
Any other character – No change on output 4

e- E – Switch on Output 5
e- Switch off Output 5
P - Pulse output 5
Any other character – No change on output 5

f - F – Switch on Output 6
f - Switch off Output 6
P - Pulse output 6
Any other character – No change on output 6

g - G – Switch on Output 7
g - Switch off Output 7
P - Pulse output 7
Any other character – No change on output 7

h- H– Switch on Output 8
h - Switch off Output 8
P - Pulse output 8
Any other character – No change on output 8

Example:

oUtAbxPEFGH

Will Switch on output 1, switch off output 2, No changes on output 3 and Pulse output 4.Outputs 5-8 will be switched on. It will also send back a status SMS because the second letter of oUt ia a capital letter.

6.1.6 Reset SMS counter remotely:

<Passwd><Space>RESETSMSC

<Passwd> : Programming password

Example:

12345 RESETSMSC

Cellcop will reply with a Status message where the SMS count is Zero.

6.1.7 Send USSD command to the Phone:

This functions is used to execute a USSD command remotely and Get the response back via SMS.

<Passwd><Space>USSD:<USSDCommand>

<Passwd> : Programming password

< USSDCommand > : Network related Get balances load airtime ect.

Example:
12345 USSD:*141# - Request prepaid balance on MTN

MTN

***141#** - Balance Enquiry
141<PIN># - Recharge Request
141*6328<MSISDN># - Me2U Top Up Request
141*7<BundleSize># SMS bundle purchase
***141*7*0#** - SMS bundle cancellation
***141*8#** - Yello Fortune Entries

VODACOM:
*100*01*<voucher no.># - Load Voucher.
*100#; - Balance

6.1.8 Send Schedule to the cellcop:

This function is used to SMS scheduled command to the Cellcop.

<Passwd><Space>ADDS*<POS>EMTWTFSSDDMMYYHHMMCC

Where:

POS: 01-24 Scheduled program position
E: Enable Program.
MTWTFSS: Days of the week.
DDMMYY: Date
HHMM: Time
CC: Command

Commands available:
AN,BN,CN,DN,EN,FN,GN,HN – Switch outputs 1-8 On
AF,BF,CF,DF,EF,FF,GF,HF – Switch outputs 1-8 Off
AP,BP,CP,DP,EP,FP,GP,HP – Pulse output 1-8 for the pulse time
MN,MA,MB – Switch to Mode N, A and B
RV,RP – Enable Vehicle Gate, Enable Pedestrian Gate
Rv,Rp – Disable Vehicle Gate,Disable Pedestrian Gate
SM – SMS to the numbers configured on the Interval numbers on the “Other Page”
xy where x and y can be ‘a’-‘p’. Copy number x to number y.
a-p: Number 1 to Number 16

Example:

12345 ADDS*05EMTWTF007777771500AN
Pos 05, Enable On, MTWTF is ON SS is Off, Date:777777 Time:1500 CMD:AN

6.1.9 Delete all Scheduled Commands from the Cellcop:

<Passwd><Space>SHALLDEL

Example:
12345 SHALLDEL

6.1.10 Gate Remote SMS Commands

Add a Number – Find number and update. If not present find empty space and store.
<Passwd><Space>GRADD<V or P><Number>
V or P – Vehicle or Pedestrian
Number – Cellphone number in the international format. +27…….

Example: 12345 GRADDV+278312345678

Delete a Number – Find number in database and delete it.
<Passwd><Space>GRDEL<Number>

Example: 12345 GRDEL+278312345678

Delete all numbers
<Passwd><Space>GRALLDEL

Example: 12345 GRALLDEL

6.1.11 Switch monitor mode by SMS Commands

SMS from a number with control rights

"MN" or "On" – Set to mode N
"MA" or "Off"– Set to mode A
"MB" or "Sleep" Set to mode B

"On", "Off" and "Sleep" is for this example. You can configure your own text.

If the second character of the Command is a Capital it will SMS the Status back to the number from where the command came.

6.1.12 Analog Limits

<Passwd><Space>SETAwxyz*<Value>

w – 1 or 2 for Analog 1 or Analog 2
x - H or L fir High or Low
y – L or W for Limit or Warning
z – V o r H or T or A for Value or Hysteresis or Time or Analog limit
Value - 16 bit signed value or a Analog value when A is used

Example

12345 1HWV*100 – Set High Warning Limit to 100 Units
12345 1HLA*27.5 – Set Analog 1 High Alarm Limit to 27.5

6.1.12 Analog Status

Request the Analog Status from the Cellcop
Analog values and all limits.

SMS “ANSTA” from a number with control rights

Example:

ANSTA

6.1.13 Custom Status Request

STA*xxyyzz

xx – Hex Number (input text 1-8)
yy – Hex Number
zz - Hex Number

Examples

STA*FF0000 – All Inputs
STA*00FF00 – First 8 after Inputs on Status Config Page
STA*0000FF – Last 8 on Status Config Page

6.1.14 Version and serial Number Query (Available from V09-11-09 onwards)

Send VERQ to the Cellcop and the Firmware version and serial number of Cellcop will be returned.

6.1.15 Programming Inputs and Charger alarm parameters using SMS commands (Available from V09-11-09 onwards)

<Passwd><Space>xySMSM*,<Message>#TI*<Timer>*#TO*ZZZZ#E*<Enable>#

Where

x	y
1 - Input 1,	H – High Alarm (Top)
2 - Input 2,	L - Low Alarm (Bottom)
3 - Input 3,	
4 - Input 4,	
5 - Input 5,	
6 - Input 6,	
7 - Input 7,	
8 - Input 8,	
C – Charger Input	
B – Battery Input	
A – Analog Input	

<Timer> - Is the timer value

ZZZZ is the Hex Value [0000 – FFFF] to set the numbers to receive the alarms

	Digit 1	Digit 2	Digit 3	Digit4
Send to numbers:	16 15 14 13	12 11 10 9	8 7 6 5	4 3 2 1

Hex Value	Binary Value	Hex Value	Binary Value
0	0000	8	1000
1	0001	9	1001
2	0010	A	1010
3	0011	B	1011
4	0100	C	1100
5	0101	D	1101
6	0110	E	1110
7	0111	F	1111

Example: 02AF

	0	2	A	F
	0000	0010	1010	1111

Send to Numbers 1,2,3,4,6,8 and 10

<Enable> - 0 or 1 where
0 – Disabled
1 – Enabled

Example Message:
12345 3HSMSM*Input 3 On# TI*20#TO*02AF#E*1#

This will configure input 3 High to Send the message “Input 3 On” after a delay of 10 seconds to numbers 1,2,3,4,6,8 and 10 and the function is enabled.

6.1.16 Changing the programming Password (Available from V09-11-09 onwards)

<Passwd><Space>CHANGEPW*<New Password>

Example Message:

12345 CHANGEPW*johan

Will change the password from 12345 to johan.

Remember the password must be 5 characters long.

6.1.17 Changing the Site Name/Address (Available from V09-11-09 onwards)

<Passwd><Space>CHANGESN*<Site Name>

Example Message:

12345 CHANGESN*SN:Witbank;

Will program the site name to: SN:Witbank;

Remember the site name can only be up to 20 characters long.

6.1.18 Query Status to All numbers (Available from V24-02-11 onwards)

Send SALL to the Cellcop to send the status message to all numbers programmed

Example Message:
SALL

6.1.19 Request Numbers from the unit (Available from V24-02-11 onwards)

Request numbers programmed from the Cellcop.
Send
<Passwd><Space>REQNUMBERS<Group> Where group is 1 (1-8) or 2 (9-16)

Example Message:

12345 REQNUMBERS1 to get numbers 1 to 8 programmed.

SPECIFICATION

1. Communication device used	Nokia 5110
2. Number of outputs	8
3. Number of inputs	8
4. Power supply	14.2V DC ± 5%

IMPORTANT NOTICE

A security system cannot prevent emergencies. It is only intended to alert you and - if programmed - your neighbors and monitoring station of an emergency situation. Security systems are generally very reliable but they may not work under all conditions and they are not a substitute for prudent security practices or life and property insurance. Your security system should be installed and serviced by qualified security professionals who should instruct you on the level of protection that has been provided and on system operations.