

Communi-Cell **Communicator** **Nokia Version**

Jan 2007

Instruction Manual



ABOUT THE COMMUNI-CELL COMMUNICATOR SYSTEM

The **Communi-Cell** Communicator system is based on GSM SMS technology. It uses a standard **Nokia 5110, Nokia 6110 or Nokia 6150** 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 / 4 / 2 Inputs to communicate 8 / 4 / 2 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

4 / 2 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)
- 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

Monitor AC power using the cell phone charger as input AC power can be monitored by monitoring the cellphone charger state

- SMS can be send to up to 16 numbers when an power failure occur and when the power return

Monitor AC power using the charger input (Not available on Communi-Cell 2x2N)

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

Monitor the battery status (Not available on Communi-Cell 2x2N)

- 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.

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

2. Operation of the Communi-Cell Communicator

2.1 Setting up the Unit for operation

The following steps should be followed to use the Communi-Cell Communicator

1. Program the unit using the supplied programming software (See Programming the Communi-Cell Communicator)
2. Wire up the inputs to sensors.
3. Wire outputs to devices to be controlled
4. Connect cellphone to cellphone charger
5. Connect cellphone to Communi-Cell Communicator
6. Connect power and battery to the unit

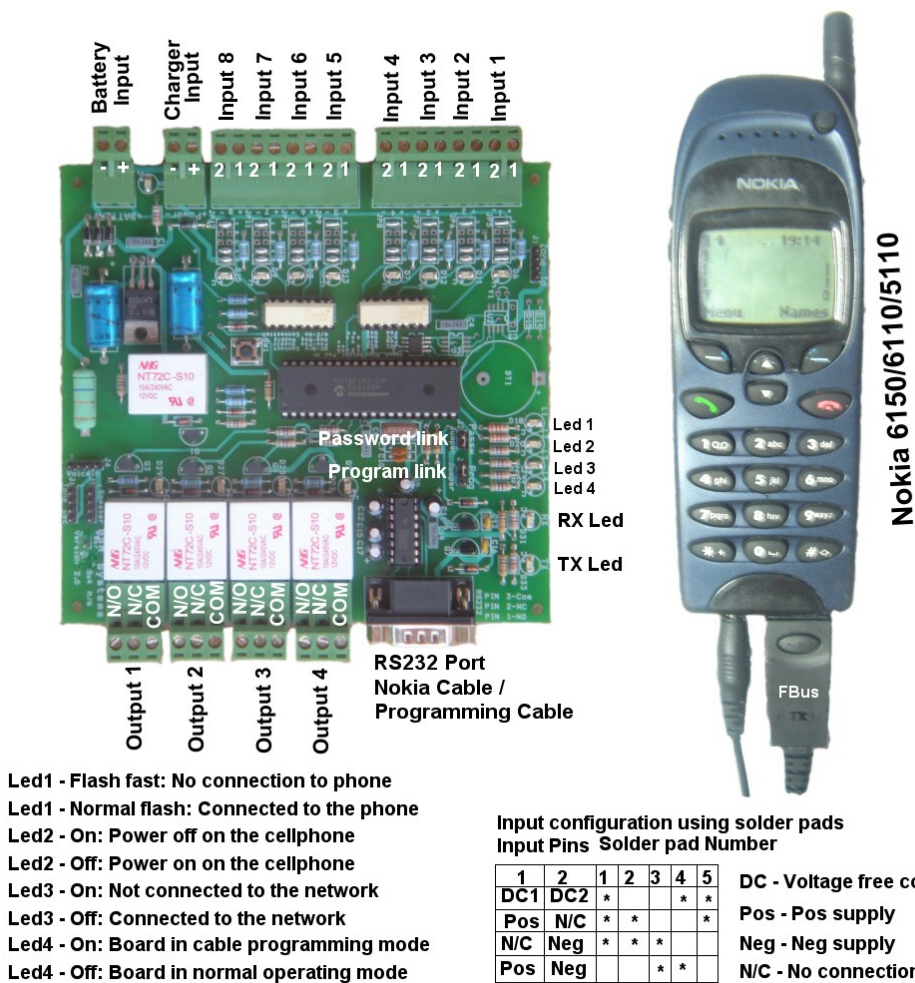
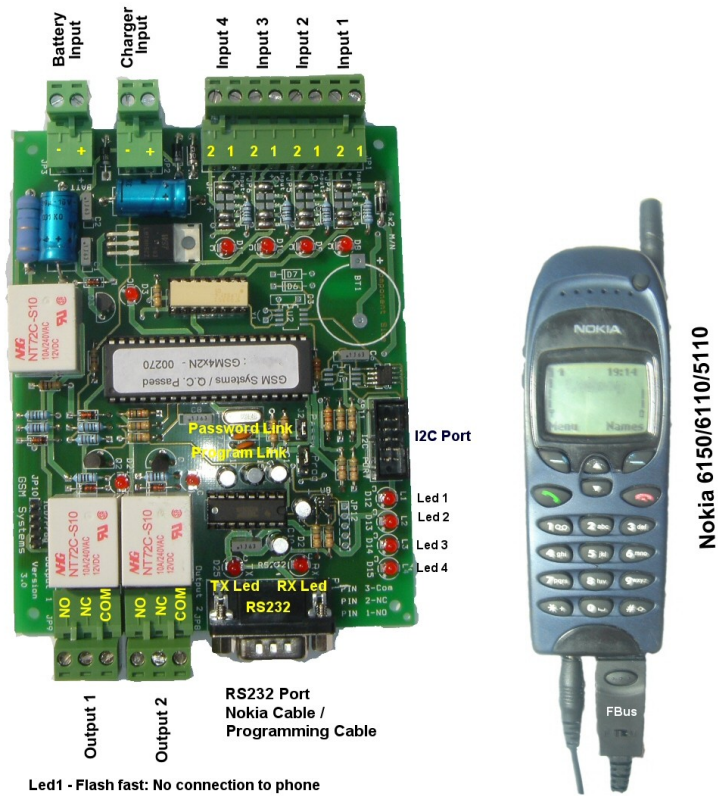


Figure 1: Setup used by the Communi-Cell 8x4 Nokia Communicator



- Led1 - Flash fast: No connection to phone
- Led1 - Normal flash: Connected to the phone
- Led2 - On: Power off on the cellphone
- Led2 - Off: Power on on the cellphone
- Led3 - On: Not connected to the network
- Led3 - Off: Connected to the network
- Led4 - On: Board in cable programming mode
- Led4 - Off: Board in normal operating mode

Input configuration using solder pads
Input Pins Solder pad Number

1	2	1	2	3	4	5	
DC1	DC2	*	*	*	*	*	DC - Voltage free contact
Pos	N/C	*	*	*	*	*	Pos - Pos supply
N/C	Neg	*	*	*	*	*	Neg - Neg supply
Pos	Neg	*	*	*	*	*	N/C - No connection

Figure 2: Setup used by the Communi-Cell 4x2 Nokia Communicator

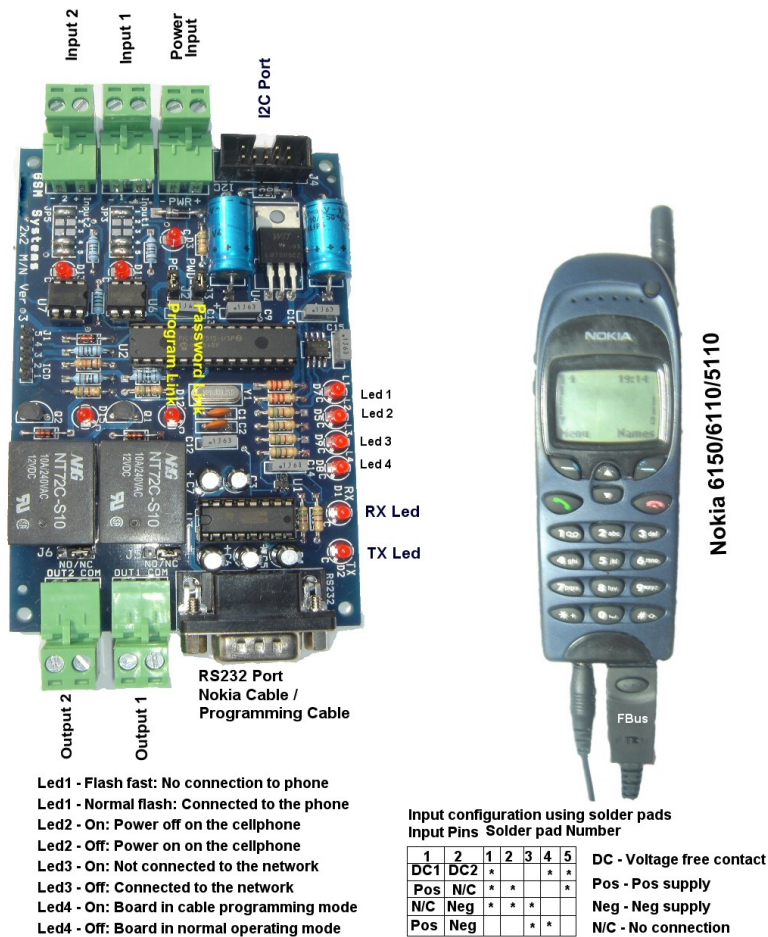
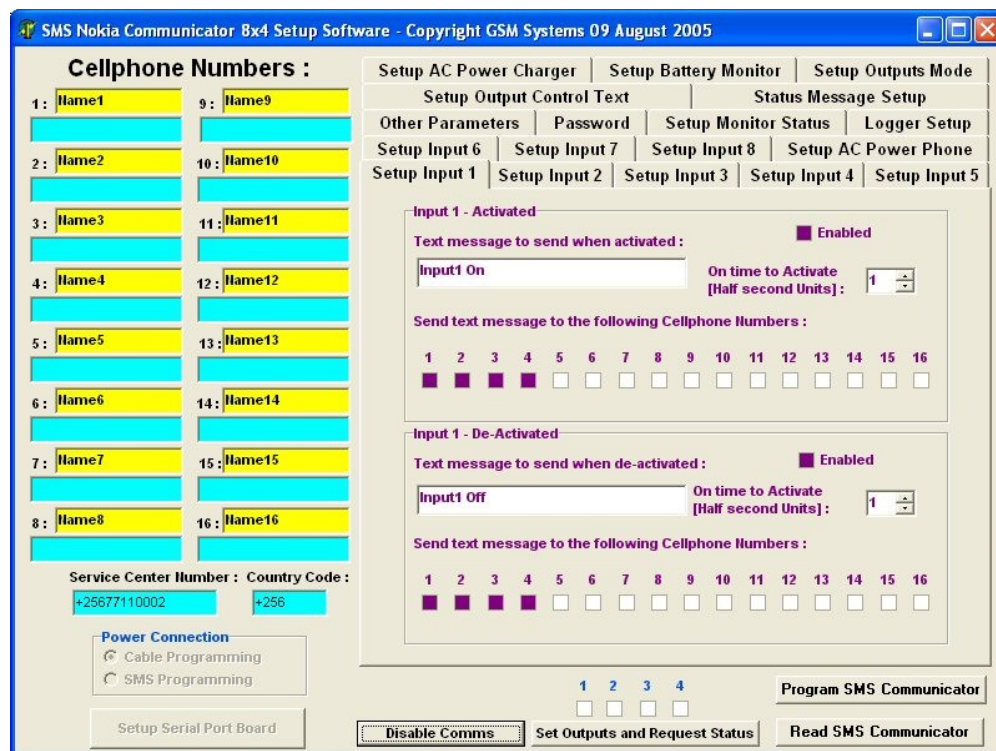


Figure 3: Setup used by the Communi-Cell 2x2 Nokia Communicator

2.1.1 Programming the Communi-Cell Communicator

Cable programming:

1. Connect the Communi-Cell 8x4N / 4x2N / 2x2N to the PC using the RS232 cable
 2. Power-up the Communi-Cell 8x4N / 4x2N / 2x2N using a 12 V DC supply. L4 the Status Led should be on to indicate that the unit is in the program mode (insert link on board to enter in program mode).
 3. Run the supplied programming software
- The following window will appear :



Select the serial port that the Communi-Cell 8x4N / 4x2N / 2x2N is connected to using the Com Port Setup

Click on the Enable Comms button to enable the communications

Click the read SMS communicator button to read the information from the Communi-Cell Communicator

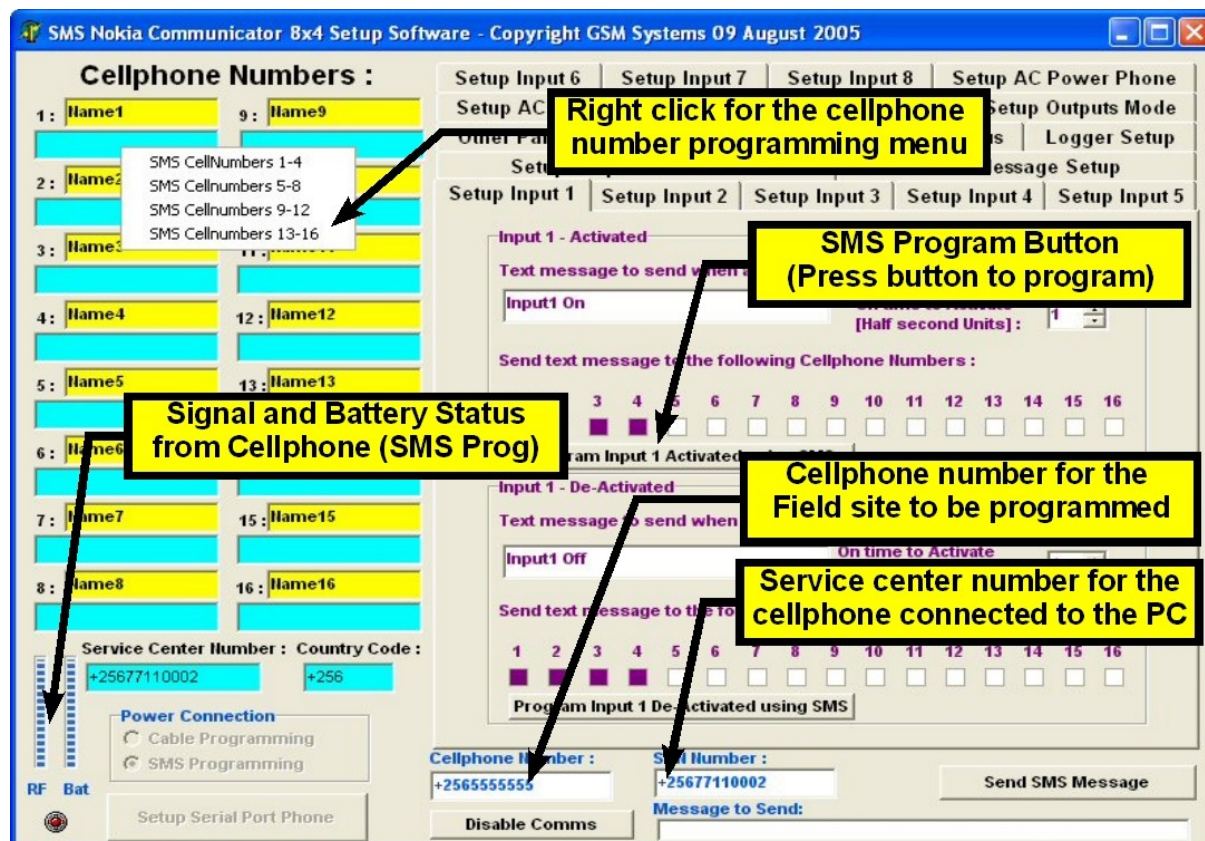
Change the information and parameters to fit your setup

- 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

SMS programming:

1. Connect a 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.
 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.



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 programming cable is plugged in before the board is powered then the password will be reset to 12345.

Service Center Number :

Service Center Number : Country Code :

+25677110002	+256
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MTN : +27831000002 Pay as you go : +27831000113
Vodacom : +27829119 or +27829129

Cellphone Numbers and names:

Cellphone Numbers :	
1 : Johan Pretorius +27833086972	9 : Name9
2 : Willem +278212345678	10 : Name10
3 : Name3	11 : Name11
4 : Name4	12 : Name12
5 : Name5	13 : Name13
6 : Name6	14 : Name14
7 : Name7	15 : Name15
8 : Name8	16 : Name16

Input parameters:

Example 1 :

Setup Input 4	Setup AC Power Monitor	Setup Outputs													
Setup Input 1	Setup Input 2	Setup Input 3													
Input 1 - Activated <input checked="" type="checkbox"/> Enabled															
Text message to send when activated :															
<input type="text" value="Input1 On"/>	On time to Activate [Half second Units] :	<input type="text" value="20"/>													
Send text message to the following Cellphone Numbers :															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 1 - De-Activated <input type="checkbox"/> Enabled															
Text message to send when de-activated :															
<input type="text" value="Input1 Off"/>	On time to Activate [Half second Units] :	<input type="text" value="10"/>													
Send text message to the following Cellphone Numbers :															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Input 1 is setup to send a SMS containing text "Input1 On" to Cell phone number 1 only if the input 1 was on for 10 seconds. No SMS will be send when Input 1 go Off.

Example 2 :

Setup Input 4	Setup AC Power Monitor	Setup Outputs
Setup Input 1	Setup Input 2	Setup Input 3
Input 2 - Activated Text message to send when activated : <input checked="" type="checkbox"/> Enabled Dam is vol On time to Activate [Half second Units]: 1 Send text message to the following Cellphone Numbers : 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
Input 2 - De-Activated Text message to send when de-activated : <input checked="" type="checkbox"/> Enabled Dam is leeg On time to Activate [Half second Units]: 1 Send text message to the following Cellphone Numbers : 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		

Input 2 will send an SMS to Cell numbers 1 and 2 when Input 2 go on containing the text "Dam is vol" and it will send an SMS to Cell numbers 1 and 3 when Input2 go off containing the text "Dam is leeg"

Setup Output Mode:

Setup Outputs Mode				
Input Trigger	Output 1	Output 2	Output 3	Output 4
Output Pulse	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Default State	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pulse Timer	4	4	6	4
Normal	Mode A	Mode B		
Invert Inputs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Input 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Input 8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ring In	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ring Mode	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Voice	Fax	Data	

Outputs 1,3 and 4 will be off and output 2 will be on when the board is switched on. The pulse timers will be 4 sec's for outputs 1, 2, and 4, while the pulse length for output 3 will be 6 sec's. When a missed call is registered to the unit it will switch on the outputs if the Ring mode is enabled. The example shown will switch on output 1 for 4 sec's when a voice call is received. Output 2 will switch on for 4 sec's when a fax call is received. Output 4 will switch on for 4 sec's when any call type is received. NB: The caller ID must be on and only numbers with control rights will be able to control the outputs.

AC Power monitor parameters Phone:

Setup AC Power Phone	Setup AC Power Charger	Setup Battery Monitor													
Cellphone AC Power On															
Text message to send when activated :		<input checked="" type="checkbox"/> Enabled													
<input type="text" value="Krag is aan"/>	On time to Activate [Half second Units] :	<input type="text" value="10"/>													
Send text message to the following Cellphone Numbers :															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cellphone AC Power Off															
Text message to send when de-activated :		<input checked="" type="checkbox"/> Enabled													
<input type="text" value="Krag is af"/>	On time to Activate [Half second Units] :	<input type="text" value="10"/>													
Send text message to the following Cellphone Numbers :															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The communicator will send an SMS to cellphone number 16 containing "Krag is aan" when the cellphone charger is connected to the cellphone and it is switched on. It will send an SMS to cellphone number 1 and 16 containing "Krag is af" when the cellphone charger is connected to the cellphone and it is switched off.

AC Power monitor parameters battery charger: (Not available on the Communi-Cell 2x2N)

Setup AC Power Phone	Setup AC Power Charger	Setup Battery Monitor													
Charger Input AC Power On															
Text message to send when activated :		<input checked="" type="checkbox"/> Enabled													
<input type="text" value="Charger On"/>	On time to Activate [Half second Units] :	<input type="text" value="1"/>													
Send text message to the following Cellphone Numbers :															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Charger Input AC Power Off															
Text message to send when de-activated :		<input checked="" type="checkbox"/> Enabled													
<input type="text" value="Charger Off"/>	On time to Activate [Half second Units] :	<input type="text" value="1"/>													
Send text message to the following Cellphone Numbers :															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

Status of the battery:
(Not available on the Communi-Cell 2x2N)

Setup AC Power Phone	Setup AC Power Charger	Setup Battery Monitor													
Battery Ok															
Text message to send when activated :		<input checked="" type="checkbox"/> Enabled													
<input type="text" value="Battery Ok"/>	Battery Ok Limit: [x0.0588 V]	<input type="text" value="185"/>													
Send text message to the following Cellphone Numbers :															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Battery Faulty															
Text message to send when de-activated :		<input checked="" type="checkbox"/> Enabled													
<input type="text" value="Battery Faulty"/>	Battery Faulty Limit: [x0.0588 V]	<input type="text" value="180"/>													
Send text message to the following Cellphone Numbers :															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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.

Other parameters:

The interval SMS send an SMS to the selected cellphone number on the interval specified.

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.

The cellphones with control rights are identified here. Control rights give access to controlling outputs (SMS and ringing in) and to request status.

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.

Setup Monitor Status Outputs

Monitor Status Outputs				
	Output 1	Output 2	Output 3	Output 4
Monitor Status Control Output				
Mode Normal	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mode A	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mode B	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mode Activate Pulse(s) on Output(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	ModeN - 1 Pulse ModeA - 2 Pulses ModeB - 3 Pulses			
Input Activate Mode Setup	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	None	Input 1: Mode A - ModeN Input 2: Mode B - ModeN	Input 1: ModeN - Mode A - ModeB	

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.

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

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.

The screenshot shows the 'SMS Nokia Communicator 8x4 Setup Software' window. The 'Logger Setup' section is active, displaying various event logging options. The 'Cellphone Numbers' section on the left contains 16 numbered fields (Name1 to Name16) and a 'Service Center Number' field with '+25677110002' and a 'Country Code' field with '+256'. The 'Power Connection' section has 'Cable Programming' selected. The 'Logger Setup' section includes checkboxes for 'Log Input Change Events (High/Low)', 'Log Input Alarm Events (High/Low)', and 'Log Other Events' (Charger On/Off, Batt OK/Faulty, Phone Charger on/off, and Alarms). There are also checkboxes for 'SMS Receive Events', 'SMS Transmit Events', 'Log Ringing In Events', and 'Log Output events'. At the bottom, there are buttons for 'Reset Log', 'Get Log Status', 'Download Log', 'Program SMS Communicator', 'Read SMS Communicator', and 'Set Outputs and Request Status'.

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.

2.1.2 Wire up the inputs to sensors

The inputs can be wired up in various configurations.

The inputs can be setup to be used in various configurations by soldering the solder tags correctly.

Solder tag configuration:

Input configuration using the solder pads

Input Pins	Solder pad Number	1	2	3	4	5
DC1	DC2	*			*	*
Pos	N/C		*			*
N/C	Neg	*	*	*		
Pos	Neg		*	*		

DC – Dry contact (Switch or relay)

Pos – Positive of the supply

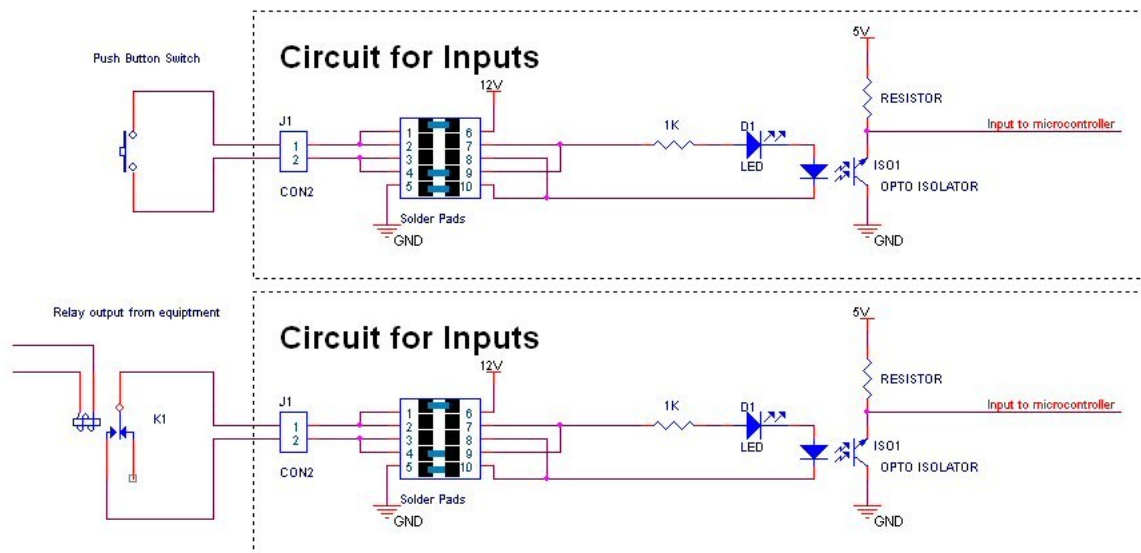
Neg – Negative of the supply

N/C – No connection

Configuration 1 (Dry Contact)

Solder pads 1,4 and 5 must be soldered.

Dry Contact Inputs

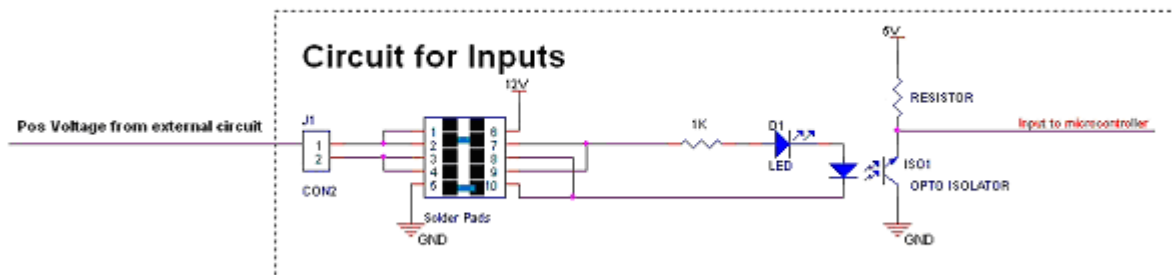


If the switches are closed the corresponding Input will go on and SMS will be send to the configured telephone numbers.

Configuration 2 (Pos on pin 1 N/C on pin 2)

Solder pads 2 and 5 must be soldered.

Pos Supply on Input



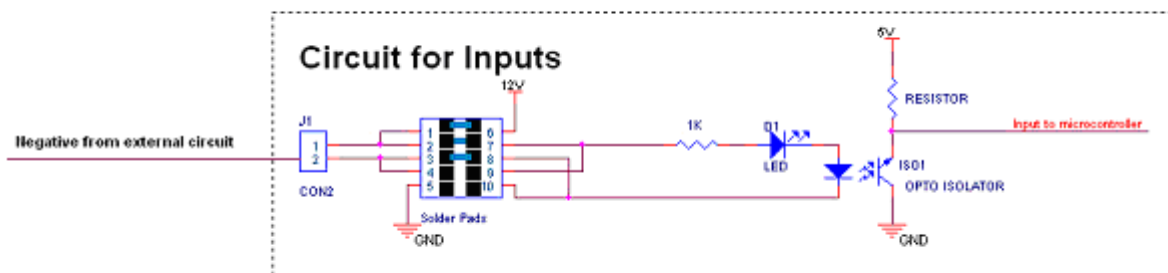
Note: This circuit can only be used if the external equipment and **Communi-Cell** Communicator use the same supply.

If a common supply is used then a positive from the alarm circuit can be used to trigger the unit.

Configuration 3 (N/C on pin 1 Neg on pin 2)

Solder pads 1,2 and 3 must be soldered.

Pos Supply on Input



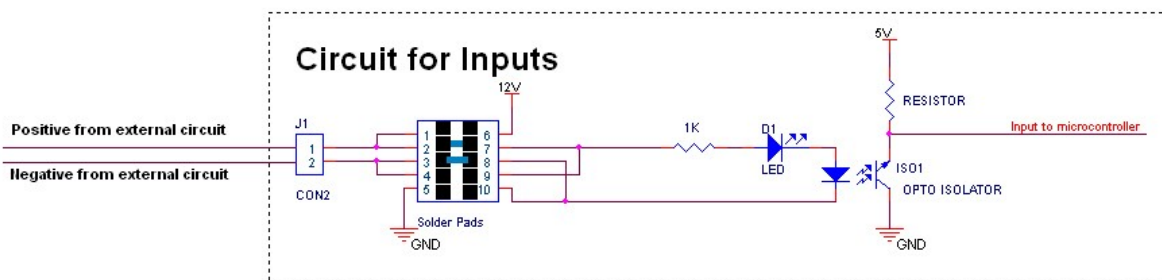
Note: This circuit can only be used if the external equipment and **Communi-Cell** Communicator use the same supply.

If a common supply is used then a negative from the alarm circuit can be used to trigger the unit.

Configuration 4 (Pos on pin 1 Neg on pin 2)

Solder pads 1,2 and 3 must be soldered.

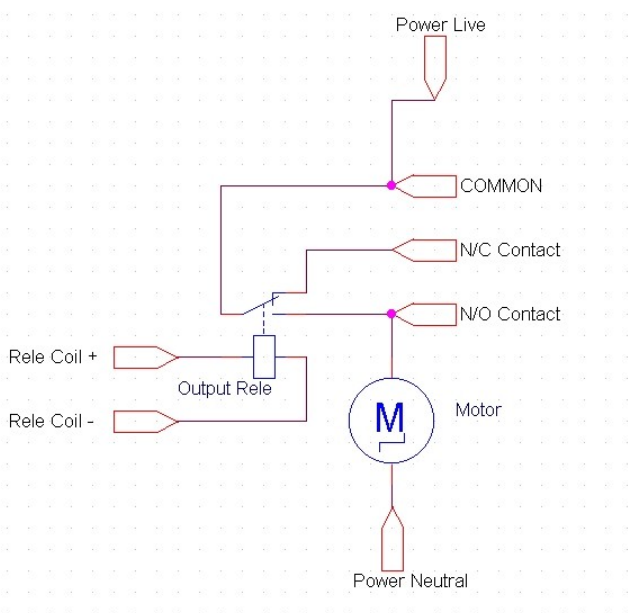
Pos Supply on Input



No common supply. Positive and negative is supplied from external alarm circuitry.

2.1.3 Wire outputs to devices to be controlled

The outputs are isolated rele outputs and are able to switch 240 VAC 5 A. The relay output are available on the terminals.



Output used to switch on a motor using less than 240VAC and 5A current

2.1.4 Connecting the cellphone

The Communi-Cell Communicator must be connected to the nokia 5110, nokia 6110 or nokia 6150 cellphone using the supplied connector. The connected cellphone must also be connected to a cellphone charger permanently. If the charger is on the Communi-Cell Communicator will interpret it as "Power on" and if the charger is of the Communi-Cell Communicator will interpret it as "Power off".

2.2 Controlling the Communi-Cell Communicator using a Cellphone

The Communi-Cell Communicator can be controlled by sending SMS to the cellphone connected to the Communi-Cell Communicator. If control rights is enabled, only cellphones with control right can send sms 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.

Setup Outputs		Setup Output Control Text	
Command	Output 1	Output 2	
On	Out1On	PumpOn	
Off	Out1Off	Out2Off	
Pulse	Out1Pulse	Out2Pulse	

The following messages can be send :

Message send	Action
S	Request the status of the SMS Communicator. The SMS Communicator will reply with the status of all inputs outputs and Power status.
AN	Switch output 1 On
AF	Switch output 1 Off
AP	Put a pulse out on output 1
BN	Switch output 2 On
BF	Switch output 2 Off
BP	Put a pulse out on output 2
CN	Switch output 3 On
CF	Switch output 3 Off
CP	Put a pulse out on output 3
DN	Switch output 4 On
DF	Switch output 4 Off
DP	Put a pulse out on output 4
MN	Select Normal Monitor mode
MA	Select A Monitor mode
MB	Select B Monitor mode

NB : Outputs can only be controlled with SMS if Output follow is None or Ringing in.

Other SMS Commands

Set Date/Time on Phone:

<Passwd><Space>SETDT:HHMMSS<Space>DDMMYYY

Example:

12345 SETDT:214526 06102005 will set Phone clock to 12:45:26 06 October 2005

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

SPECIFICATION

1. Cellphone used	Nokia 5110 / 6110 / 6150
2. Number of outputs	4 / 2
3. Number of inputs	8 / 4 / 2
4. Power supply	12V DC \pm 5%
5. Max. voltage for outputs 1 to 4	240 V AC
6. Max. current for outputs 1 to 4	10 A

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.