SMS Transceiver V3

User manual

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1. Introduction

The SMS Transceiver V3 is developed for GSM-based operations monitoring or as an alarm transmitter for existing alarm installations. The unit is simple to install and easy to use. The SMS Transceiver has numerous features and settings options which makes it adaptable for different applications and specific requirements.

When an input is triggered, the SMS Transceiver sends a text message alarm. In addition to the SMS, the unit can also make a call to the alarm recipient, to attract further attention.

By sending an SMS command or calling the unit, users can remotely control the SMS Transceiver's relay outputs. An access control function can limit the amount of users authorised to control the unit. The SMS Transceiver is easily configured with the PC-programme Config Tool.

2. Connections

2.1 Inputs

The unit is equipped with six alarm inputs; each input can send four individual text messages to four recipients. Two messages can be sent when voltage is applied to the input and two messages when voltage is removed. I.e. both when triggered and returning to the input's normal state.

SMS texts and recipients are individually configured for each alarm message with the PC-programme, Config Tool.

With the feature Call, the inputs can be configured to make a call, in addition to the SMS, when triggered. The calls are made to the recipients of the alarm messages.

The inputs have two alarm modes; *Block Time* and *Delay.* The inputs can not be configured individually, all inputs will have the same alarm mode. Read more in chapter 3, Function.

2.2 Outputs

The SMS Transceiver V3 has two relay outputs. They can be activated either by SMS or a phone call to the unit.

At SMS activation the activation time is set to 1-254 seconds, alternatively ON/OFF.

At an incoming phone call, either or both relay outputs can be set to activate 1-254 seconds, alternatively to switch state ON/OFF. The settings are made with the Config Tool or via SMS command.

The relay outputs are made for maximum 1A at 24V, an external relay is recommended for higher loads. The outputs are N/O, normally open.

2.3 Power supply

The SMS Transceiver has internal voltage regulation and rectification which enable a supply voltage of 9-24V AC or DC. Typical current consumption is approx. 30mA, max. 1A.

The internal rectifier uses half wave rectification. That mans that the SMS Transceiver *should not* be connected to equipment with full wave rectification if there is a risk for contact between the SMS Transceiver's and the connected equipment's earth.

It is very important to verify that G and G0 (phase and earthed neutral) is connected according to specification if the unit is attached to an AC power supply that also powers other equipment connected to the unit, otherwise it will be damaged.

2.4 Contacts

One side of the unit's casing has an antenna contact and a 12+2 pin pluggable screw terminal block, configuration in paragraph 5.3. Make sure no loose wires are visible outside the contacts on the screw terminal block before starting the unit. The other side of the casing has a 9 pol. D-Sub female (RS232), used for connection to a PC to enable configuration.

2.5 Battery back-up

The SMS Transceiver can be equipped with an internal back-up battery. Alarms via SMS can be sent in case of external power failure and when power returns. (Read more in paragraph 6.6)

3. Functions

3.1 Alarm messages

When an input is affected, two SMS can be sent to two different recipients. Different messages can be sent when the input goes 'high' and when it goes 'low'. I.e. each input can in total send four different messages to four different receivers.

Alarm messages are configured with the PC programme Config Tool. Each message may contain max. 160 characters.

Note! Special characters like the Swedish 'åäö' or the German 'ü' can not be used in the alarm messages! The phone numbers must include country prefix, e.g. +46701234567.

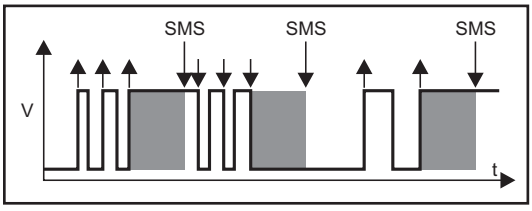
3.2 Delay

The 'delay' function determines the minimum time an input needs to be triggered for a message to be sent.

When an input is triggered up to two messages are sent, the delay is the amount of time the input needs to be triggered to send the messages. If the input is triggered a shorter period of time than set delay, no messages are sent. At next triggering, delay time is being counted again (see picture below).

The delay time is active both when an input goes high and low. Delay time can be set individually for each input between 1-254 seconds.

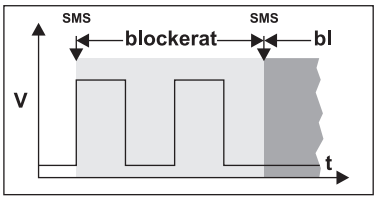
In the example the input is initially low, the delay time starts every time voltage is applied on the input. When the input has been high long enough for the delay time to expire (grey), the SMS are sent, then the delay time starts every time voltage disappears from the input. When voltage has been gone long enough the SMS are sent alerting that the input has gone low and time starts again when the input goes high, and so forth.



3.3 Block time

The inputs can be configured to block repeated SMS during a certain time after an input has been triggered. When the input is triggered, up to two messages are sent. As illustrated below the block time starts when the input has been triggered and prevents more messages from being sent.

When the block time expired, the input is low in the example. Since the block time started when the input went high, new messages will be sent to indicate that the input have gone low during the block time. A new block time is also started for the input's low state. Had the input still been high when the block time expired, no new messages had been sent.



The block time can be individually set for each input between 1-254 seconds. The block time can be changed with the PC programme Config Tool or via an SMS command.

3.4 Call

A triggered input can in addition to sending an SMS be configured to make a call to further attract attention to the alarm. The unit will call the SMS recipients, the call's purpose is to attract attention, for further information about the alarm, the alarm message has to be read.

3.5 Access control

The access control limits the possibilities to remotely control the unit via SMS commands or calls. Only the phone numbers stored in the access list are accepted. Incoming SMS or calls from unauthorised users are ignored. The number of users that can be stored in the access list is determined by the number of phone book places on the SIM card. Approxomately 220 users can usually be stored in the access list. The function is activated in the PC programme Config Tool.

It is not possible to remotely control the unit from a phone with unlisted number.

3.6 Supply power monitoring

If the unit is equipped with internal battery back-up (option) the supply power is monitored. Alarm messages and recipients are defined in the PC programme Config Tool. SMS are sent when supply power is lost and when it returns.

3.7 Monitored inputs in case of loss of power

Every change of the inputs' status is monitored and their current state is continuously stored in the unit's memory. In case of loss of power, the unit will at re-start compare the inputs' status before and after the power loss. Any changes will be detected and generate alarm messages

3.8 Re-start function

To ensure that the SMS Transceiver is on-line with the GSM network, the unit automatically re-starts the GSM module once a day.

4. SIM card and configuration

It is easy to configure the SMS Transceiver before installation but configuration can also be made afterwards if there is access to a PC at the installation site. If so, just carry out paragraph 4.1 and 4.2 before installation.

4.1 SIM card requirements

The SMS Transceiver requires a valid GSM subscription with the following configuration:

1) The PIN code must be removed (place the SIM card in a mobile phone and switch off the PIN code control function). Re-start the mobile phone and ensure that it does not require PIN code. If PIN code is still active, it can be removed when Config Tool is connected to the unit.

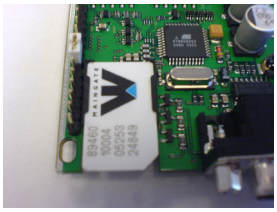
2) The SMS service must be activated.

3) Pre-paid cash cards are a good alternative if you do not expect to send a lot of messages, note however that some service providers require a registration to ensure the subscription is not deactivated after a period of time (some pre-paid cash cards must be refilled once a year to avoid deactivation).

4) The caller ID function should be activated. Call the mobile phone to ensure the number is displayed (contact the GSM operator to activate caller ID if necessary).

4.2 Install SIM card:

1) Unscrew the four torx screws (T8) on the same side of the casing as the LEDs and the configuration contact (see picture in paragraph 5.3). Remove the end piece.



2) Insert the SIM card with the contact side face down according to the picture, note the diagonal edge. Push until it stops, do not use force.

3) Re-mount the end piece with the four torx screws.

4.3 Configuration

1) Install Config Tool on the computer by opening Microsoft Explorer and double click on the file 'SMS_V3 Install V1.1.exe' (on the attached CD-ROM). Follow the instructions.

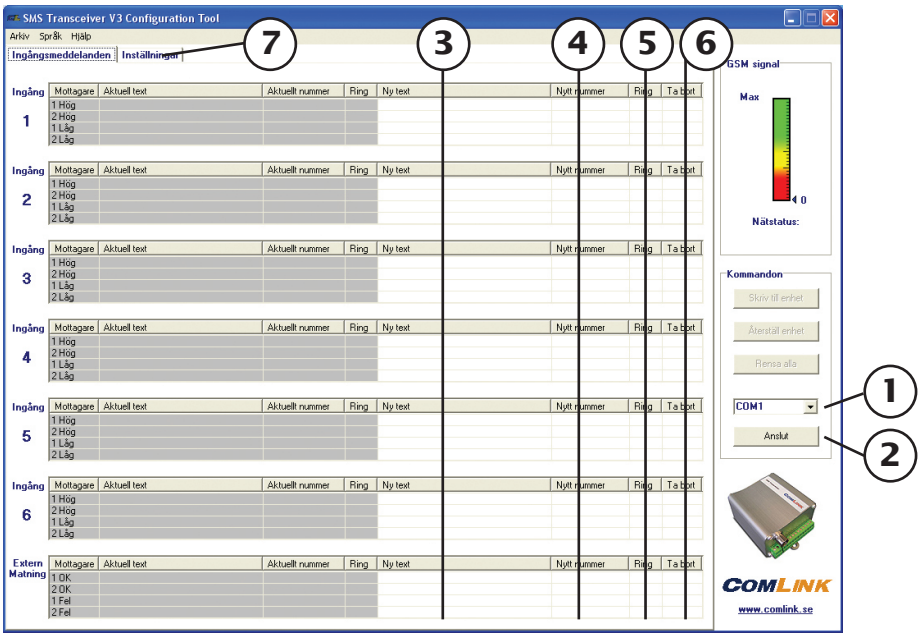
2) Connect the net adaptor (or other powers supply) to the outlet and the designated place in the screw terminal block (see the connection guide in paragraph 5.3). Be careful to get the polarity right and make sure no loose wires are visible.

3) Connect the communication cable between the unit's and the computer's serial ports.

4) Open Config Tool and specify which serial port on the computer the SMS Transceiver is connected to. Ensure that the green LED is lit (double blinks if the access control is activated) and click on the 'connect' button. (PIN code can be removed by the Config Tool.)

5) Make the necessary settings for the unit to operate (see paragraph 4.4), do not forget to save the settings by clicking on the 'Read and write' button.

6) **The unit has to be re-started for the new settings to take effect.**
Disconnect the communication cable and disconnect the power supply. If the unit is equipped with battery back-up, switch it off first and then disconnect the adaptor contact. Reconnect the external power and then the battery back-up.



4.4 Use the Config Tool

If necessary, change to your preferred language in the 'Language' menu.

1. Specify what serial port on the computer the SMS Transceiver is connected to.

2. Wait for the green LED indicator on the SMS Transceiver to be permanently lit (or double flash if access control is activated), then click on the 'Connect' button. The PIN code can be removed with the Config Tool, should it still be active (yellow LED triple flashes). (Previously made settings are presented in the grey text fields when the programme is connected.)

3. Double click on the text fields and type the alarm texts to be sent. The two top rows on each input represents the messages being sent when the input 'goes high', i.e. when a voltage is applied. The two bottom rows represents the messages being sent when the input 'goes low', i.e. when the voltage disappears from the input.
   NOTE! Special characters, like the Swedish 'Ääö', can not be used in the alarm messages. The messages can not contain more than 160 characters.

   External Power (only available with internal battery back-up installed)
   Monitoring of the external power. The two top rows represents the messages being sent when external power returns and the bottom two rows, the messages being sent when the external power disappears.

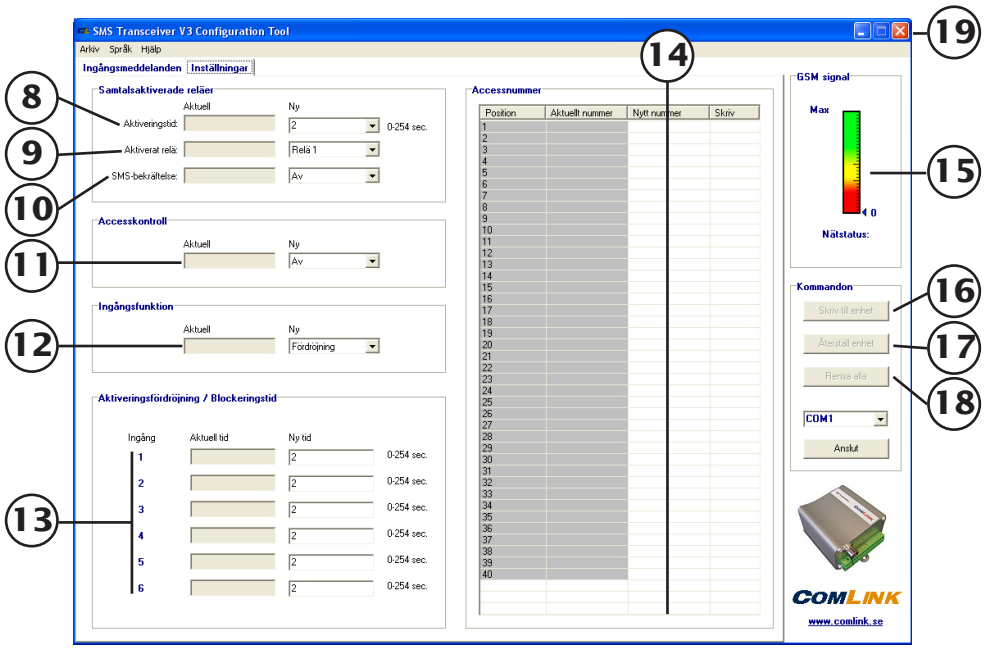
4. Specify the phone number to which the messages shall be sent. Note that each message has an individual phone number. Always include the country prefix, e.g. +46701234567.

5. To attract further attention, the unit is also able to call the alarm recipient. Tick the 'Call' field to specify the recipients receiving a call at an alarm. (See paragraph 3.4).

6. To delete individual messages, click on the 'Delete' field.

7. Click on the 'Settings' tab to change image.

Profiles can be saved and loaded under the 'File' menu, ideal for repeated installations.
Note: It is the content of the white fields that is saved in the profile!



8. Specify how long relay/relays should be activated by an incoming call. The time is stated in seconds (0-254). 0/Toggle states that the relay/relays should change state. Either type a value in the white field or choose from the pop up menu. (See paragraph 6.1).

9. Specify which relay/relays should be activated by an incoming call. Choose from the pop up menu (See paragraph 6.1).

10. State whether an SMS Acknowledgement should be sent to the numbers controlling the relay/relays via a phone call. (See paragraph 6.1).

11. State whether the 'Access control' should be active/inactive. (See paragraph 3.5).

12. State the input mode: 'delay' or 'block time'. (See paragraph 3.2 and 3.3).

13. State the 'delay'/'block time' for each input (0-254 sec). 0 means that the input will not trigger any alarms. (See paragraph 3.2 and 3.3).

14. Provide the phone numbers (incl. country prefix) that are authorised to control the SMS Transceiver via SMS or call. E.g: +46701234567.
The list will adapt to the number of accesses possible to be saved on the SIM card.

15. Check that the unit in logged on to the GSM network. Also, check that the signal is sufficient (at least yellow). If necessary adjust the antenna position.

16. Click on the 'Write to unit' button to save the settings in the SMS Transceiver.

Note that it is necessary to re-start the SMS Transceiver for the new settings to take effect; switch off battery back-up (if applicable) and disconnect the 2 pole contact.

17. The 'Reset Unit' button is used to delete all saved settings and reset the unit to the delivery settings. (See paragraph 8.3).

18. The 'Clear All' button is used to clear the 'white' text fields in the programme.

19. Close the programme. The computer can not be connected to the SMS Transceiver during normal operation.

5. Installation

5.1 Mounting

Mount the SMS Transceiver on a DIN rail or with screws. The unit has a robust aluminium casing but must not be mounted where it is exposed to wet or too high air humidity.

5.2 Antenna

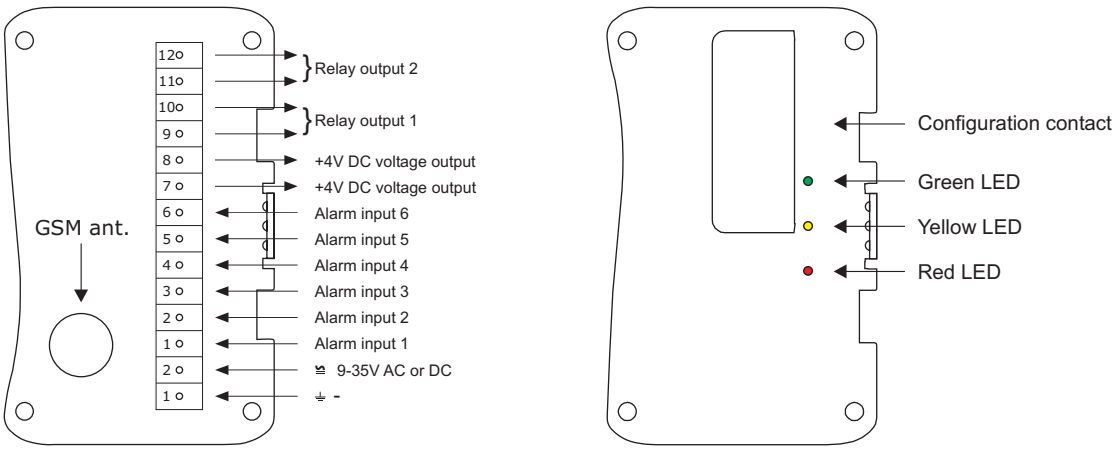
Connect the GSM-antenna to the contact at the side of the casing. (See paragraph 5.3).

5.3 Connect equipment

Connect sensors and any equipment that is to be controlled by the relay outputs to their respective places in the screw terminal block (connection diagram below). The screw terminal block is made for cables of maximum 1,5 mm².

To trigger an input, a voltage of 4-24V DC need to be applied or removed from the input. Minimum pulse length for 'block time' input mode is 50 ms and for 'delay' mode, 1 sec. The 4V reference voltage on pin 7 or 8 can be used to trigger the inputs if passive sensors (n/o alt. n/c) are used.

The inputs can also be connected directly to equipment with an active voltage output, i.e. voltage 4-15V DC. The SMS Transceiver and the equipment must have common earth to get the right potential for the input.



The relay outputs can handle 1A at 24V, a closure is made between pin 9-10 (R1) and 11-12 (R2) according to instruction in the incoming SMS or telephone call.

Note. We do not recommend tin coating the cable before connecting it to the screw terminal block, it may result in poor connection and failure over time.

5.4 Start up and antenna positioning

Connect the supply power and switch on the battery back-up (if applicable), the red LED indicator will flash intermittently during start up and proceed to short flashes with a long interval when the unit has logged on to the GSM network. (See LED indications, paragraph 6.2.1)

If the unit does not log on to the GSM network it might be necessary to re-position the antenna to find a place with better signal conditions. Use the signal indicator in the Config Tool to optimize the antenna position. Also, check that the PIN code is removed.

6. Handling

6.1 Remote control of the outputs

The SMS Transceiver has two relay outputs which can be remotely controlled via SMS commands or by a phone call to the unit. (Relay 1 (R1) is connected to place 9 & 10 in the screw terminal block, Relay 2 (R2) is connected to place 11 & 12.)

To activate an output, i.e. to switch it 'ON', means that a closure is made between the relay's two connections. The closure can be used to switch on or off equipment connected to the relay. The relay is of the low current type which means that it can be loaded with a maximum of 24 Volt, 1 Ampere.

The relays can be set to ON, OFF or activated 1-254 seconds. This is specified in the SMS command sent to the unit.

When calling the unit, the relays are affected according to the configuration done with Config Tool or an SMS. Settings can be done for which of the relays, alternatively both, shall be activated. Settings are also made whether the relay/relays shall be activated on a timer (1-254 sec.) or change state (ON/OFF).

When receiving an incoming call, the SMS Transceiver 'looks' at the number via caller ID, checks it against the access list, affects the relay/relays and then declines the call. Since the call is never connected, the unit just 'looks' at the calling number, this function generates no cost.

An SMS acknowledgement can be sent to the calling number activating the relay/relays, e.g: 'Relay1 is now OFF' or 'Relay2 is active for 254 sec'.
For further information, see the summary of the SMS commands in paragraph 6.4 and 6.5.

6.2 Unit operation information

Users can receive information messages about the unit's status and configuration by sending an SMS command. It is also possible to get information about the unit from the LED indicators on the side of the SMS Transceiver casing (see picture in paragraph 5.3).

6.2.1 LED indication

Three LEDs situated beside the RS232 contact indicate the unit's function (see picture in paragraph 5.3)

6.2.1.1 Green LED - indicates operational mood

Flashing intermittently:	Unit during start-up.
Double flash:	Normal operation with activated access function.
Constantly lit:	Normal operation with deactivated access function.
Unlit:	Unit switched off.

6.2.1.2 Yellow LED - indicates events or error status

Unlit:	Normal operation.
Lit:	SMS being sent.
Quick flash:	'Call alert' in progress.

The yellow LED flashing sequence indicates error status, a number of flashes is followed by a 5 second pause:
Error status is displayed during 30 seconds, followed by a modem re-start.

1 flash	Error/no OK from the modem during start-up.
2 flashes	No SIM card.
3 flashes	PIN code active. (No re-start, PIN is removed with Config Tool)
4 flashes	SIM card not ready to be read by the phone book.

6.2.1.3 Red LED - indicates GSM status

Flashes every 3rd sec:	Normal operation - logged on to the GSM network.
Flashes intermittently:	No contact with service provider, SIM card missing or PIN code active.
Unlit:	Unit switched off.

6.2.2 Status message via SMS

Contains information about:
Each input's current state (high/low).
If external supply power is OK (with battery back-up).
The relays' current state (ON/OFF).
Current GSM signal.
Software version.

6.2.3 Configuration message

Contains information about the settings made in the unit:
Each input's 'Delay'/'Block time' (in seconds).
If 'Call' is activated on each respective input.
What input mode is set for the inputs, 'delay' or 'block time'.
Which relay/relays are activated by an incoming call.
How the relay/relays are affected by an incoming call.
Whether SMS acknowledgement shall be sent to the number calling to remotely control the relay/relays.
If the access control is active.

For more information, see the summary of SMS commands in paragraph 6.4 and 6.5.

6.3 Configuration via SMS

Several SMS Transceiver functions can be configured by sending SMS commands to the unit:

1) Input Mode, whether the inputs should be configured with 'delay' or 'block time'. The duration of 'delay' or 'block time' can be set for each input. It is also possible to switch an input's alarm function off.

2) The 'call' function can be activated for each respective input.

3) Which relay/relays shall be activated with an incoming call. The function can also be deactivated.

4) How long the the relay/relays shall be activated by an incoming call or if it/they should switch state.

5) The 'acknowledgement' function of relay status to those remotely controlling the unit via call can be switched on or off.

For more information, see the summary of SMS commands in paragraph 6.4 and 6.5.

6.4 SMS commands

Guide to the SMS commands users can send the unit from their mobile phone.

If the 'access control' is activated, the sending phone number must be in the access list. The SMS Transceiver monitors the incoming messages, if the sending phone number is not in the access list the message will be ignored.

Note that the commands must be typed in capitals, **exactly** as shown below.

6.4.1 Activation of the relays

Activates relay 1 for a given time, a closure will be made between pin 9-10 in the screw terminal block.

Command	**Explanation**
R1=[ON/OFF/time]	Activates/deactivates relay 1.
Example	**Explanation**
R1=ON R1=OFF R1=120	Activates relay 1 Deactivates relay 1. Activates relay 1 for 2 minutes, time can be set to 1-254 sec.
Note	
The setting can be checked by sending an SMS containing the command '?' to the unit.	

Activates relay 2 for a given time, a closure will be made between pin 11-12 in the screw terminal block.

Command	**Explanation**
R2=[ON/OFF/time]	Activates/deactivates relay 2
Example	**Explanation**
R2=ON R2=OFF R2=240	Activates relay 2. Deactivates relay 2. Activates relay 1 for 4 minutes, time can be set to 1-254 sec.
Note	
The setting can be checked by sending an SMS containing the command '?' to the unit.	

6.4.2 Status message

Send an SMS containing a '?' to the unit to retrieve information about the unit's status: the input's current state, if external power is connected, the relay's state, current GSM signal strength and software version. The unit will reply with an SMS to the sender of the request.

Command	**Explanation**
?	Retrieves information about the unit's status. Reply to the sender of '?'.
Reply	**Explanation**
STATUS: In1=0 In2=0 In3=0 In4=0 In5=0 In6=1 External power=ON Relay1=OFF Relay2=ON Signal strength=14 (31) SW=3.0	 Input 1 Low (0)/High (1) Input 2 Low (0)/High (1 Input 3 Low (0)/High (1) Input 4 Low (0)/High (1) Input 5 Low (0)/High (1) Input 6 Low (0)/High (1) External power supply ON/OFF Relay 1 ON/OFF Relay 2 ON/OFF Current GSM signal, maximum reception is 31 Software version
Note	

6.5 SMS commands for configuration of the SMS Transceiver V3

6.5.1 Configuration message

Send an SMS containing the command 'CONFIG' to the unit to get information about current configuration: the inputs' Delay/Block time, alert call, monitoring of external power, input mode, which relay/relays are activated by call, relay/relays activation time by call, SMS acknowledgement at call and access control. The configuration message is returned as an SMS to the sender of the command.

Command	**Explanation**
CONFIG	Retrieves information about the unit's configuration. Reply to the sender of '?'.
Reply	**Explanation**
CONFIG: In1: T=5, C=OFF In2: T=0, C=OFF In3: T=5, C=ON In4: T=120, C=OFF In5: T=240, C=ON In6: T=5, C=ON In7: C=ON IM=D AR=1 AT=3 ACK=ON Access=ON	 Input 1, Delay/Block time 5 sec, Call Off *(paragraph 3.2, 3.3 & 3.4)* Input 2, Alarm function deactivated, Call Off ” Input 3, Delay/Block time 5 sec, Call On ” Input 4, Delay/Block time 2 min, Call Off ” Input 5, Delay/Block time 4 min, Call On ” Input 6, Delay/Block time 5 sec, Call On ” Monitoring of external power, Call On *(paragraph 3.6 & 3.4)* Input Mode, Delay (D)/Block time (B) *(paragraph 3.2 & 3.3)* Activated Relay at incoming call: 0=Function Off, 1=Relay1, 2=Relay2, 3=Relay1&2 *(paragraph 6.1)* Activation Time at incoming call (1-254 sec) SMS ACKnowledgement at remote control of relay by call: OFF/ON Access control: OFF/ON *(paragraph 3.5)*
Note	

6.5.2 Delay/Block time

The command sets the Delay/Block time for input 1-6

Command	**Explanation**
T1...T6=[0-254]	Sets the Delay/Block time for input 1-6 *(paragraph 3.2 & 3.3)*
Example	**Explanation**
T1=10 T3=60 T6=0	Delay/Block time Input 1, 10 sec. Delay/Block time Input 3, 1 min. No alarms are generated by input 6
Note	
The settings are checked by sending an SMS containing the command 'CONFIG' to the unit	

6.5.3 Activation of Call.

Activates/deactivates call on input 1-6 and the power supply monitoring. The calls are made to the recipients of the SMS messages.

Command	Explanation
C1...C7=[ON/OFF]	Activates/deactivates Call, *(paragraph 3.4)*
Example	**Explanation**
C1=ON C5=OFF C7=ON	Call activated on input 1 Call deactivated on input 5. Call activated for the monitoring of the external power.
Note	
The settings are checked by sending an SMS containing the command 'CONFIG' to the unit	

6.5.4 Input Mode

Sets the input mode (Delay/Block time), the input mode is the same for all inputs.

Command	Explanation
IM=[D/B]	Sets the input mode *(paragraph 3.2 & 3.3)*
Example	**Explanation**
IM=B IM=D	Input mode Block time Input mode Delay
Note	
The settings are checked by sending an SMS containing the command 'CONFIG' to the unit	

6.5.5 Activated Relay

Sets which relay/relays is being activated by an incoming call. The function can also be deactivated.

Command	Explanation
AR=[0-3]	Sets what relay is being activated by an incoming call *(paragraph 6.1)*
Example	**Explanation**
AR=0 AR=1 AR=2 AR=3	Function deactivated Relay 1 is activated Relay 2 is activated Relay 1 & 2 are activated
Note	
The settings are checked by sending an SMS containing the command 'CONFIG' to the unit	

6.5.6 Activation Time

Sets how the relay/relays are affected by an incoming call. The relay/relays can be activated for a certain time (1-254 sec) or be set to change state.

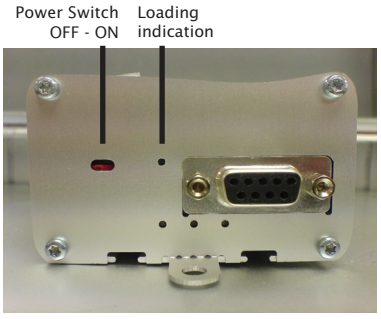
Command	**Explanation**
AT=[1-254]	Sets the activation time for relay/relays when activated by a call (*paragraph 6.1)*
Example	**Explanation**
AT=5 AT=120 AT=0	Relay/relays activated 5 seconds Relay/relays activated 2 minutes. Relay/relays change state.
Note	
The settings are checked by sending an SMS containing the command 'CONFIG' to the unit	

6.5.7 SMS ACKnowledgement

Activates/deactivates the function for SMS Acknowledgement at incoming call to remotely control the relays. The user calling to control the relays will get an SMS acknowledgement how the relay/relays are affected.

Command	**Explanation**
ACK=[ON/OFF]	Activates/deactivates SMS Acknowledgement at incoming call *(paragraph 6.1)*
Example	**Explanation**
ACK=ON ACK=OFF	SMS Acknowledgement On. SMS Acknowledgement Off.
Reply	**Explanation**
Relay1 is now OFF Relay2 is active for 254 sec.	SMS Acknowledgement that Relay 1 has been activated by call. SMS Acknowledgement that Relay 2 has been activated for a certain time (254 sec.) according to the settings made for Activation Time.
Note	
The settings are checked by sending an SMS containing the command 'CONFIG' to the unit	

6.6 Battery back-up (option)



The SMS Transceiver V3 can be equipped with an internal battery back-up; the battery is necessary to monitor the external power supply. In case of external power loss, the unit will run approximately 1 day on the battery back-up. The battery back-up is switched off at delivery; turn it on by moving the switch to the right with a screwdriver or similar (see image). The red LED indicates that the battery is charging, when it is fully charged, the LED will go out.
After configuration the unit must be re-started for the new settings to take effect. Switch off the SMS Transceiver by switching off the battery back-up *before* disconnecting the external power, otherwise the unit will send SMS that the external power is off. Re-connect the external power *and then* the battery.

7. Troubleshooting

"I get an error message when I try to connect the Config Tool: The selected action failed"

- Check that you have specified the correct COM port before you click on "Connect"
- Check that the green LED is permanently lit (double flash if the access function is activated) before you click on the "Connect" button.
- Check that the SIM card is correctly inserted.
- Check that PIN code is removed on the SIM card. Use a mobile phone to check.

"I get an error message when I try to connect the Config Tool: Could not open COM port"

- Make sure no other programmes use the COM port: e.g. sync programmes for mobile phones can block the COM port. Deactivate any such programme and retry.

"The relay/relays are not activated when I call the unit"

- Check that the green LED is lit (double flash if the access function is activated).
- Check if the access function is activated. If so, check the following:
- Check that the CID function activated on the unit's SIM card. Use a mobile phone to check.
- Check that the number you are calling from is not unlisted. Use a mobile phone to check.
- Check that the number you are calling from is in the access list.

"The SMS Transceiver does not log on to the GSM network (the red LED indication does not flash shortly with a long interval)"

- Check that PIN code is removed on the SIM card. Use a mobile phone to check.
- Check that there is sufficient GSM coverage for the chosen service provider.
- Check that the SIM card is correctly inserted.

8. Technical specifications

8.1 Contents of the SMS Transceiver V3 Kit

- SMS Transceiver V3 unit
- GSM Antenna
- Pluggable screw terminal block 12 pin
- Net adaptor 230V AC with pluggable screw terminal block 2 pin
- This user manual

8.2 Technical data

Supply voltage:	9-24V AC/DC
Current consumption nom:	30mA @12VDC
Current consumption max:	1A @12VDC
Inputs:	6 alarm inputs 4-24V DC
Outputs:	2 relay outputs N/O max. 24V, 1A
Operating temperature:	-20 - +55˚C
Casing:	Robust aluminium casing
Size:	103 x 67 x 42mm
Weight:	160g
Cable area max:	1,5mm²

8.3 Delivery settings

The unit has some default settings at delivery. They can be restored with the “Reset unit” button in the pc programme Config Tool (all other settings are cleared).
Below are the unit’s default settings:

CONFIG:	
In1-In6: T=2, C=OFF	Input 1-6, Time 2 sec, Call Off.
In7: C=OFF	Monitoring of supply power, Call Off.
IM=D	Input mode, Delay.
AR=1	Active relay at incoming call, Relay 1.
AT=2	Relay activation time at call, 2 sec.
ACK=OFF	SMS Acknowledgement at call, Off
Access=OFF	Access control, Off

8.4 Optional accessories

Config Tool CD & serial cable (free)
Internal battery back-up.
Antenna extension