Manual for *SMS-Module*

Please read following instructions carefully.

Non-observance may cause loss of warranty!

Dear customer,

You have purchased a high-quality product which has been checked several times during production. In the unlikely event of experiencing a malfunction, despite our quality control, you should proceed as follows:

- In case of a claim please contact your retailer immediately
- Please don't try to repair the damage by yourself
- You should use the original package to avoid damage during transport

Please read these instructions carefully to avoid damage and to be able to use the SMS-module optimally.

1 Shipment

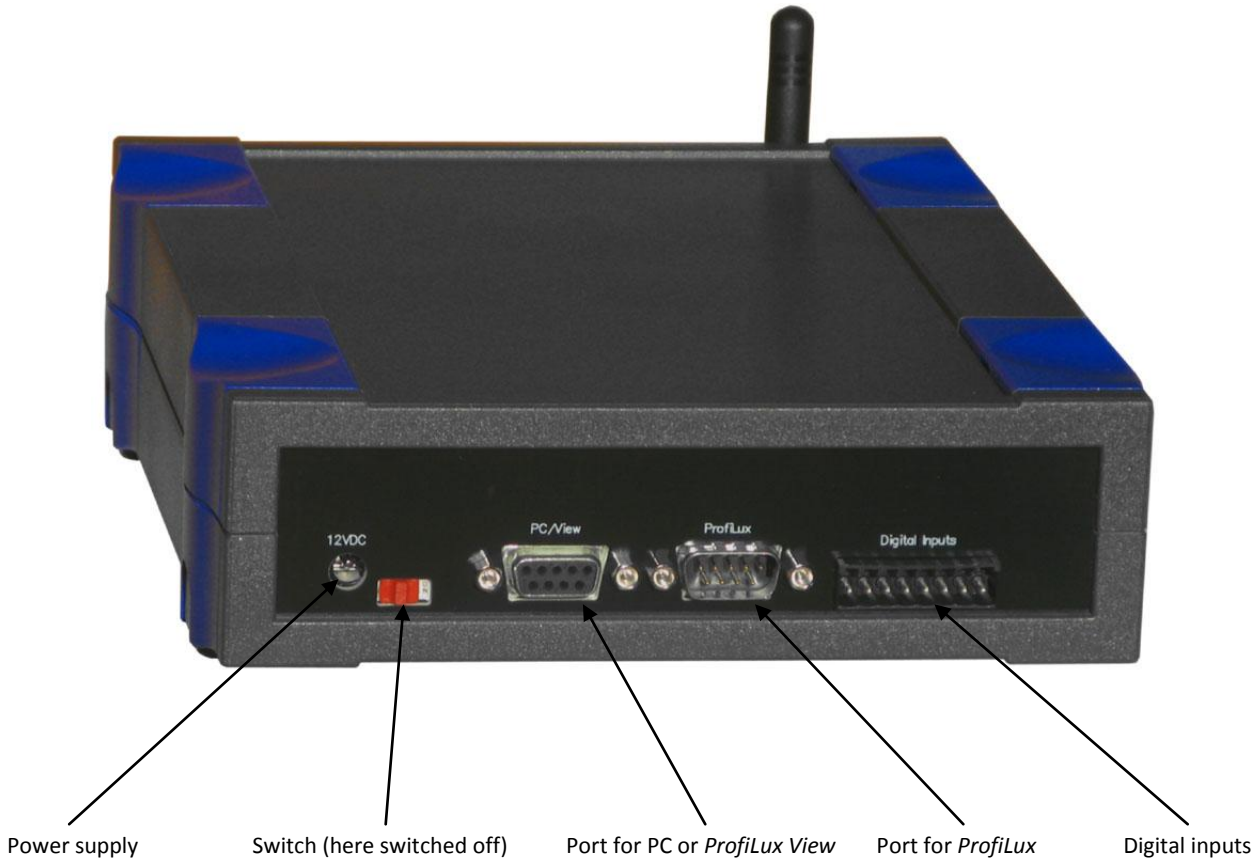
These parts must be present:

- SMS-module
- Antenna
- AC/DC adaptor
- RS232-connection cable
- This manual

2 Features

This SMS-Module can inform you about the state of one or more *ProfiLux* controllers by sending a SMS message. The sending of a SMS message can be initiated by a certain event (e.g. alarm or power cut). Up to 30 phone numbers and events can be predefined. The SMS-*Module* has a lithium-ion-battery with built-in charge controller, for this reason it is able to send a message even during a power cut. The additional RS232-port allows the connection of a PC or a *ProfiLux View* at the same time. Four digital inputs for monitoring other devices complete the functional range.

3 Connections



Due to transport reasons the antenna has been shipped separately. Screw the antenna onto the provided socket.

Insert the DC-jack of the AC/DC adaptor into the power supply connector of the SMS-Module and the mains voltage plug into a wall outlet.

If a serial connection cable between *ProfiLux* and PC is present then remove it from the *ProfiLux* and plug it instead into the port ***PC/View*** of the SMS-Module.

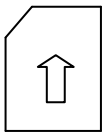
If the plug of a *ProfiLux View* is connected to the *ProfiLux* then remove it from the *ProfiLux* and plug it into the port ***PC/View*** of the *SMS-Module*.

Connect the RS232-socket of the *ProfiLux* with the RS232-plug ***ProfiLux*** of the *SMS-module*. Use for this purpose the shipped cable.

Important hints:

- **Don't swap the serial cables! The shipped cable can only be used for the connection of the *ProfiLux* with the *SMS-module*. A standard serial connection cable must be used between *SMS-module* and PC!**
- **The connected *ProfiLux* must have firmware 4.04 at least!**
- **If the communication with the PC should be made with a communication card (*PLM-USB*, *PLM-LAN*, *PLM-WLAN* or *PLM-RS485*) and your ProfiLux has a firmware <u>below</u> 4.06 then the "router"-function must be enabled (see *ProfiLux* manual, section "communication") in order to be able to communicate with the *SMS-module*. From firmware 4.06 on the router function is always enabled.**
- **During a firmware update via RS232 the *ProfiLux* must be connected to the PC directly – the *SMS-module* must not be between them!**

4 Operation



First you should insert the SIM-card (see left). The card must be pushed in firmly until it locks. If you want to remove the card again later you have to push the card until it unlocks and it will jump out. Don't remove the SIM-card during operation!

To switch the *SMS-Module* on, the slide switch on the rear must be shifted to the right, until the symbol can be seen.

Figure 1 – Switch on the right: Device is switched on

Now the device will start, the state is indicated by these LEDs:

GSM (red) – shows the state of the GSM module:

- Fast flashing (1s-period): Is searching for a radio network, not registered on the net yet
- Slow flashing (3s-period): Is registered in the radio network

Supply (green) – indicates that the external power supply is present

Power (green) – indicates that the internal power is OK

Status (yellow) – displays the current operational state of the *SMS-Module*:

- Permanent off: Device is booting and initializing
- 1x Flash: Entering PIN is required
- 2x Flash: Entering PUK is required
- 3x Flash: Entering SMS service center number is required
- 4x Flash: No (valid) SIM-card present
- 5x Flash: Hardware defective
- Permanent on: Ready, normal operation

In order to shut off the device the slide switch on the rear must be moved to the left (then the green LED ***Supply*** will turn off). It is not sufficient to shut off the external power supply because the device has an internal lithium-ion-battery.

5 Adjust the SMS-Module

All settings are done by using a PC and our program *ProfiLuxControl II* with version 4.0.5.0 or higher. The newest version can be downloaded from our homepage. To save settings to the SMS-module you have to click ***Save***.

5.1 Establish a connection

In order that *ProfiLuxControl II* will search for the *SMS-module* during establishing a connection the checkmark ***Search for SMS-module*** must be set.

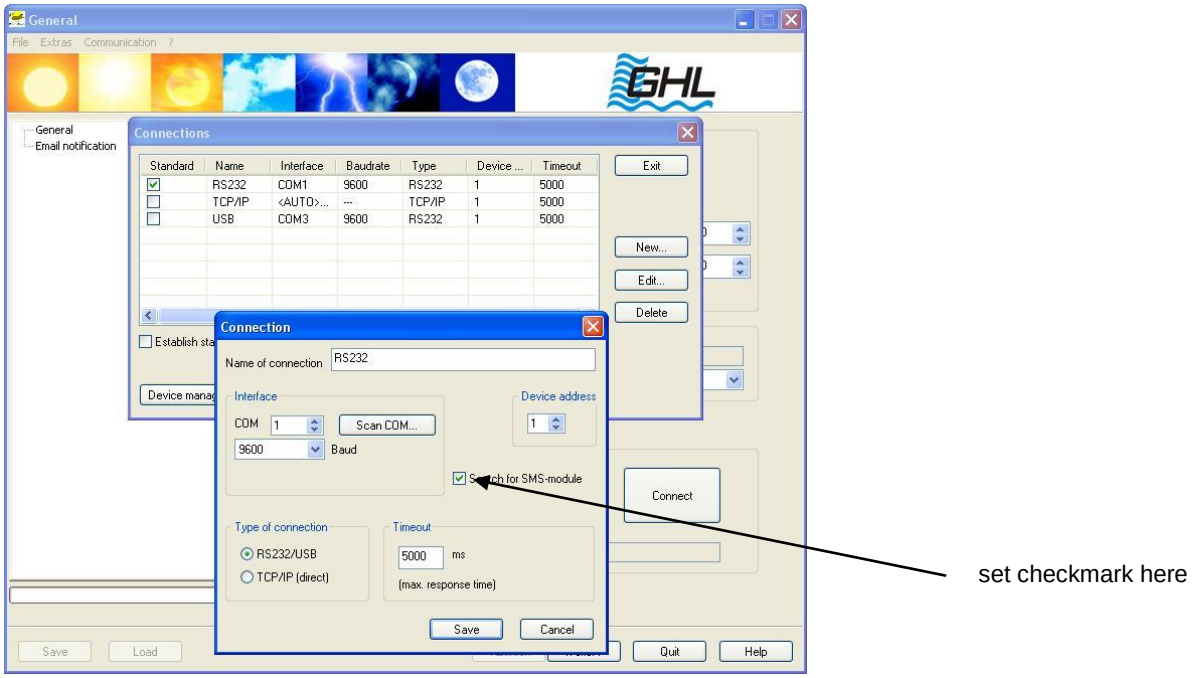


Figure 2 – Example for connection settings

Hints:

- If no *SMS-module* is present you should remove the checkmark, otherwise the connecting will take longer.
- A ProfiLux must be connected; otherwise it is not possible to establish a connection.
- The baud rate of the connected *ProfiLux* and of *ProfiLuxControl* must be set to 9600.

5.2 General settings

After clicking ***Connect*** the entry ***SMS-module*** will appear in the left navigation pane (assuming it is connected and switched on). Select this entry.

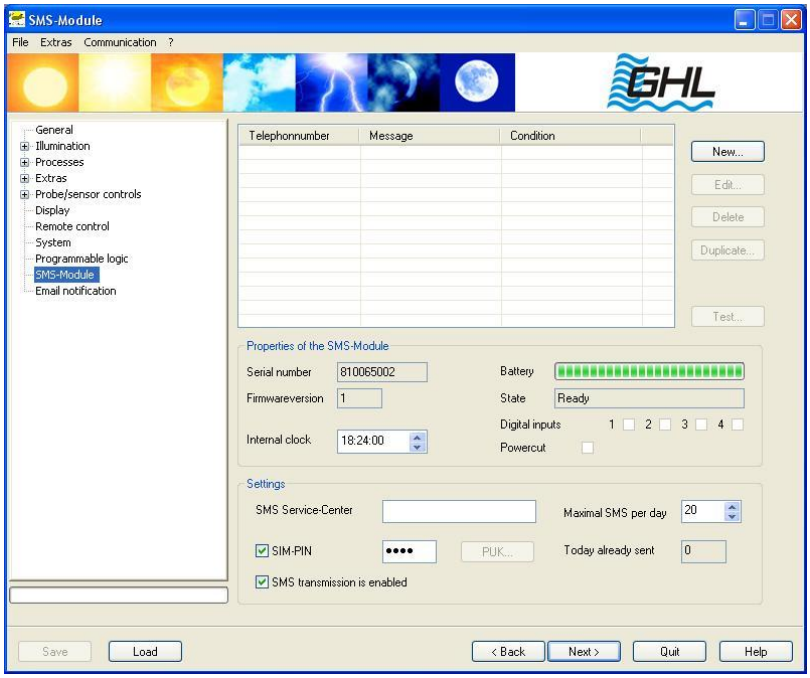


Figure 3 - Overview

This is displayed:

- Table with all defined SMS messages (in the example still empty)
- ***Battery*** – charge state of the lithium-ion-battery
- ***Status*** – operational state

- State of the 4 ***digital inputs*** – if a voltage is present a checkmark will be indicated
- ***Power cut*** – if no mains power supply is present a checkmark will be indicated
- ***Today already sent*** – the amount of SMS messages which have been sent today so far
- ***Firmwareversion*** and ***serial number***

These settings can be adjusted:

- ***Internal clock*** – the time in the *SMS-module*
- ***SMS Service-Center*** – this phone number is used to send SMS messages; this field can be left empty if an appropriate number is stored on the SIM-card; the number must be entered in international format (e.g. +4912300000123)
- ***SIM-PIN*** – the PIN for the SIM-card, if the SIM-card doesn't require a PIN the checkmark must be removed
- ***SMS transmission is enabled*** – if the checkmark is set the *SMS-module* is allowed to send SMS messages automatically
- ***Maximal SMS per day*** – this amount determines how many SMS messages may be sent in one day maximal; after reaching this amount the SMS transmission will be disabled for this day; this function protects you against unlimited transmission of SMS messages, e.g. caused by an alarm which comes and goes frequently

5.3 SMS Message

Up to 30 different SMS messages which will be sent after a specific event can be defined. In order to define a new SMS message please click ***New…***, an existing SMS message can be edited, deleted or duplicated by clicking ***Edit…*** , ***Delete…*** or ***Duplicate…***.

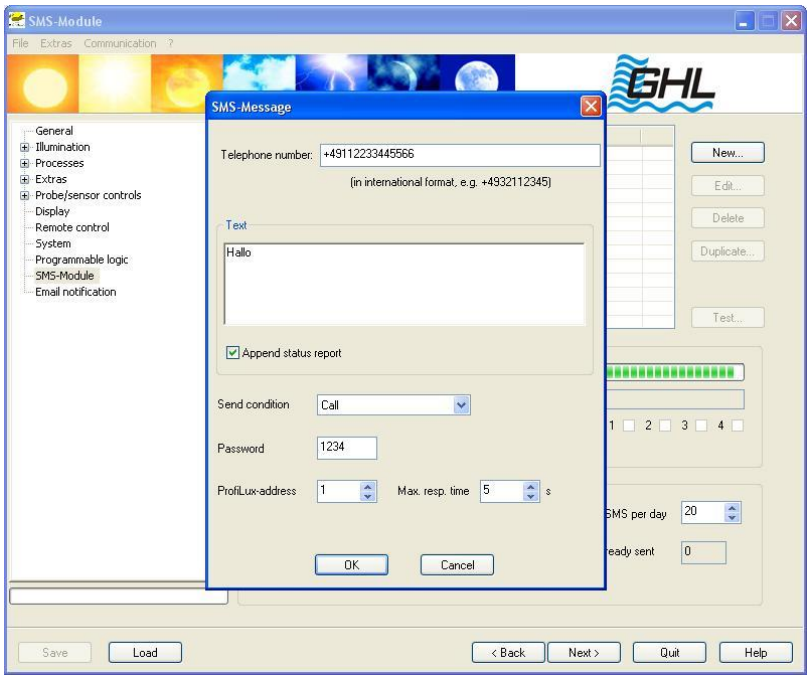


Figure 4 – Example for send condition call

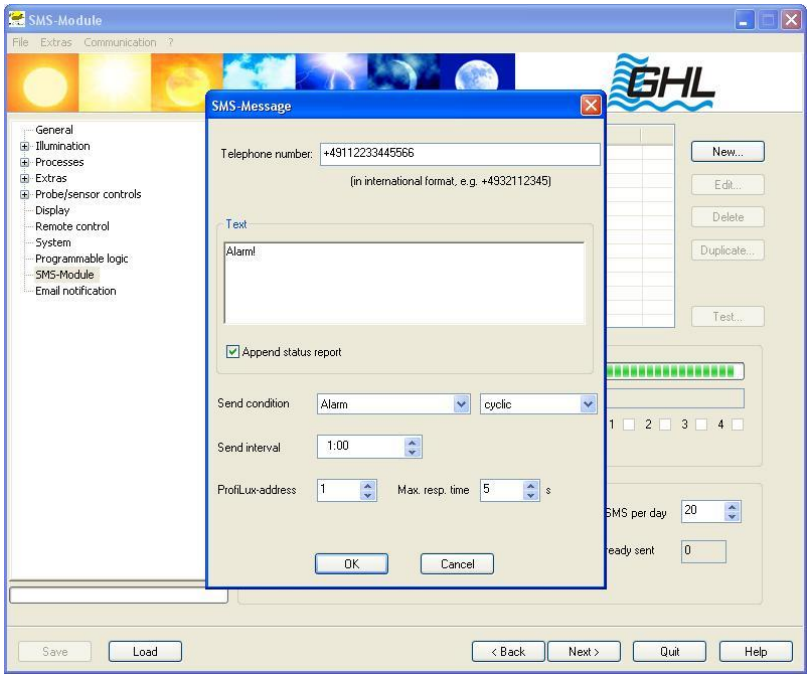


Figure 5 - Example for send condition alarm

Following settings can be defined for a SMS message:

- ***Telephone number*** – to this number (in international format) the SMS message will be sent
- ***Text*** – the recipient will be shown this text
- ***Append status report*** – if the checkmark is set here then the states of all probes from the monitored *ProfiLux* will be transmitted, too
- ***Send condition*** – determines under which condition a SMS message will be sent, see below
- ***Password*** – the *SMS-module* expects this password (4 alphanumerical characters) during an incoming call
- ***Send interval*** – the SMS messages will be sent repeatedly after this time span (in format HH:MM) (for send condition ***cyclic***)
- ***Send time*** – at this time the SMS message will be sent (for send condition ***at certain time***)
- ***ProfiLux-address*** – this is the address of the *ProfiLux* which should be monitored, usually ***1***
- ***Max. resp. time*** – this is the maximum time after which ProfiLux is supposed to response, thereafter a defect will be assumed

5.3.1 Send condition

First the prerequisites for a SMS transmission must be set:

- ***Don't send automatically*** – this SMS message will not be sent automatically
- ***Call*** – the SMS message will be sent after a SMS message with the correct password has been received
- ***Always*** – the SMS message will always be sent
- ***ProfiLux doesn't reply*** – the SMS message will be sent in the case that *ProfiLux* doesn`t reply (e.g. after a defect or power cut)
- ***Alarm*** – the SMS message will be sent in the case of an alarm of the monitored *ProfiLux*
- ***Digital input 1…4*** – the SMS will be sent if a voltage is present on this input (see below)
- ***Power cut*** – the SMS message will be sent during a power cut

In most cases the send condition must be concretized regarding time:

- ***cyclic*** – if the prerequisite is fulfilled (see above) then the SMS will be sent cyclically (repeated)
- ***at certain time*** - if the prerequisite is fulfilled then the SMS will be sent at a certain time
- ***just new*** – if the prerequisite is just new then the SMS will be sent once (example: alarm occurred just new)
- ***just over*** – if the prerequisite is just over then the SMS will be sent once (example: power cut is just over)

5.3.2 Test SMS

In order to send a SMS message for test purposes you have to mark the according table line and then click onto ***Test…***, thereafter the SMS will be sent immediately.

Hint: The ***Test…***-button is enabled only if no settings have been changed previously, in this case click ***Save*** before the SMS transmission can be tested.

6 Remote access

6.1 Call back

The definition of an appropriate send condition (***Call*** and ***password***) is required. If you send a SMS message with the correct password to the *SMS-module* then the *SMS-module* will send a reply to the preset phone number.

6.2 Enable/disable SMS transmission

You can disable the SMS transmission if you send a SMS message with the text ***SMSOFF***. If you send ***SMSON*** the SMS transmission will be enabled.

7 Location

Important hint: The SMS-module must be protected against water splashes and high humidity! (Salt-) water or too high humidity (which can occur nearby a sump for instance) will destroy the device! This voids all warranty claims!

8 Digital inputs

The SMS-module has 4 digital and optically isolated inputs.

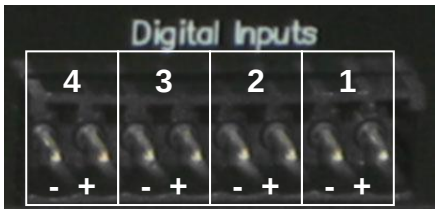


Figure 6 – Digital inputs

On these digital inputs a DC-voltage between 5V – 24V (left contact is minus, right contact is plus) can be connected. All inputs are electrically insulated. Pay attention to correct voltage and polarity!

9 Security hints

Incorrect programming or a technical defect could cause an expensive mass-sending of SMS messages! For this reason we strongly recommend to use a prepaid SIM-card and to chose the setting ***Maximum SMS per day*** not too high! Then your costs will be limited.

10 Warranty

GHL GmbH & Co. KG grants a warranty of 24 month beginning with the date of purchase for all processing or material defects. The original bill is your warranty certificate.

11 Disclaimer of liability

The manufacturer excludes liability for any (consequential) damages or charges caused by the use of this device.

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