



**This sign indicates important informations that have to be read most carefully. Please observe these informations in order to avoid misunderstandings and malfunctions.**



**The Ssf-sign indicates spezial functiones that become activ if the device is switched to the Ssf- mode (please refer to chapter 12).**

## Introduction / Declaration of Conformity

Valued customer,

thank you very much for purchasing a ConiuGo GSM Module. This product was built according to the latest technology. This module is a micro-controller device for long-distance data transfer using GSM functionality.

Manufacturer:  
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This product is labelled with the CE- sign according to the following standards:

EU- guideline 89/336/EWG of May 3rd 1989 changed by EU- guideline 91/263/EWG, 92/31/EWG, 93/68/EWG, EU- guideline 99/5/EG of April 7th 1999 and EU- guideline 1999/5/EC (R&TTE).

As well the following standards were carefully observed:

DIN EN 61000-6-3 German basic standard for RF- emission, DIN EN 61000-6-2 German basic standard for RF- immission.

This product is manufactured according to the quality standard DIN EN ISO 9001, This product is conform to the RoHS- guidelines.

This product includes a GSM transceiver unit from a third-party manufacturer (GSM 900, 1800) which ahas an own CE- mark. Using a separate power supply, please take care that this is CE- conform and safe.



**To ensure a safe operation of the Module, please read this manual carefully before taking it into operation.**

Hohen Neuendorf, in July 2008

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## 1. Limited Warranty / Limitation of Liability

ConiuGo<sup>®</sup> GmbH warrants its products to be free from defects in material and workmanship under normal use and service for a period of 2 years from the date of delivery. This warranty is limited to repair or replacement at ConiuGo's sole option. Warranty covers costs for material and personal. Costs for mounting and de-mounting as well as for return transport to ConiuGo are not covered.

In case of improper use or technical manipulation any warranty is expired. Proof of purchase must accompany the product returned for consideration under this warranty.

Any use of the device is carried out at user's own risk. In no case ConiuGo<sup>®</sup> will be liable for incidental or consequential damages, including loss of property or other economical losses..



**In case of warranty or repair you have to contact ConiuGo<sup>®</sup> first, in order to get a RMA- number. This is an internal case number. Without RMA- number ConiuGo will not accept a parcel from a customer and will not do any service or repair.**



**Damages resulting from neglect of this manual are not covered by the warranty. ConiuGo is not liable for any consequential damage.**



**ConiuGo<sup>®</sup> is not liable for damages to property or personal injuries resulting from improper use or neglect of the safety warnings. Such events are not covered by the warranty.**

## 2. Use as agreed

De GSM Scout is designed for use in Germany and the European community. According to the rules of CE- conformity, it is not allowed to distribute this device without a manual in the national language. The manual has to be authorised by the manufacturer. Any distributor has to make sure that the user of the device is capable to understand the manual regarding the content and the language.



**The GSM Scout has to be installed and put into operation by competent technicians. The user has to provide that the installation is due to the rules of electrical safety. The safety warnings have to be regarded carefully!**

All notes and information from this manual have to be read carefully and followed strictly. In case of doubt, don't put the device into operation but consult the manufacturer or your authorised distribution agent.

- The device is built according IP 31; this has to be regarded when the installation conditions are chosen.
- The ambient operating temperature range for this product is  $-30$  up to  $+60$  °C.
- The device is designed for indoor use only.
- Do not expose to excessive humidity (above 70% rel. humidity).
- A SMS- ready SIM- card is needed to put the module into operation.

If technical requirements are ignored or misunderstood, this could lead to damage of this product. Furthermore, this could lead to other dangers e.g. short circuit, fire or electric damage. This unit contains no user- servicable parts. Do not modify, disassemble or alterate this product!



**Different versions of the GSM Scout, e.g. *GSM Scout GPS with IP 65* , have a different safety class. Of course those devices are allowed to be used under conditions referring to this specific safety class.**

### 3. Safety warnings

This devices of the GSM Scout series correspond to the broadly known GSM standards. Certain specific safety precautions have to be observed strictly.



**GSM-devices can ignite explosive or inflammable gasses. It has to be provided that the device never will be put into operation under such environmental conditions!**



**Without special allowance, the device is not allowed to be put into operation in airplanes and hospitals.**



**Before putting the device into action, make sure that no negative influence of the GSM device to other technical equipment is possible.**

The manufacturer provides a product for integration in a technical assembly. The product is tested carefully according to the CE- certification to meet the standards mentioned in the declaration of conformity. Nevertheless, the electromagnetic behaviour of the module is depending on the conditions of mounting and ambient.



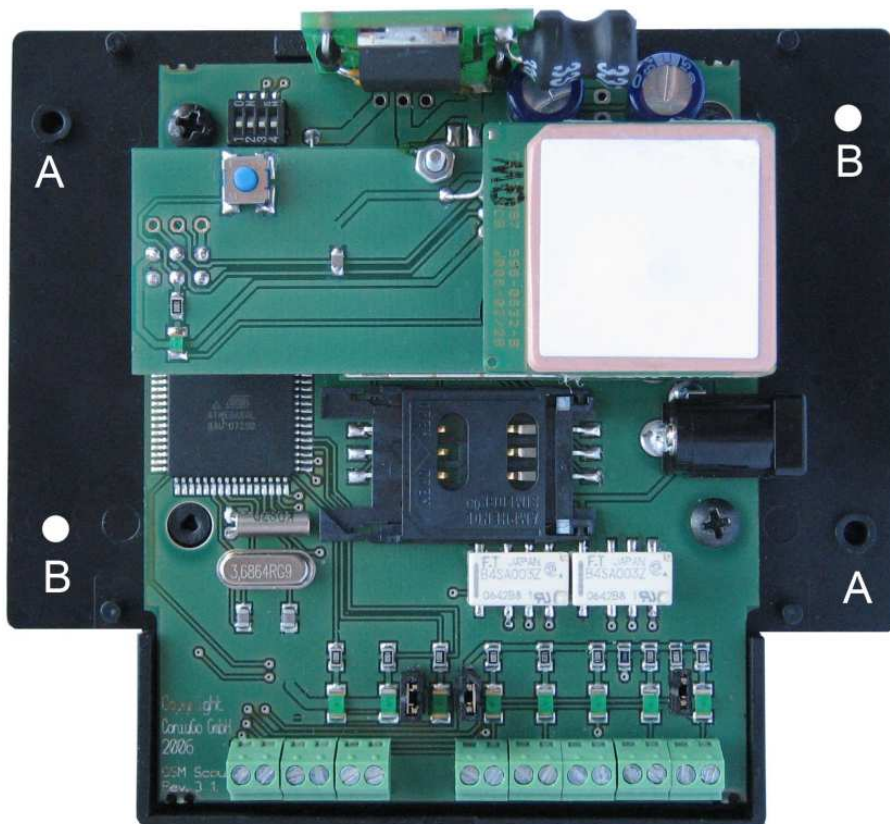
**The electromagnetic behaviour of the module depends on the environmental conditions that are out of the responsibility of the manufacturer. Any liability for eventual electronic misbehaviour is excluded.**



**Because of the RF- radiation of the GSM unit the module has to be used with a suitable GSM antenna for the specific RF band, depending on the type of the chosen GSM network. The antenna cable has to be free from any damages.**

## 4. Mounting

Fig.1



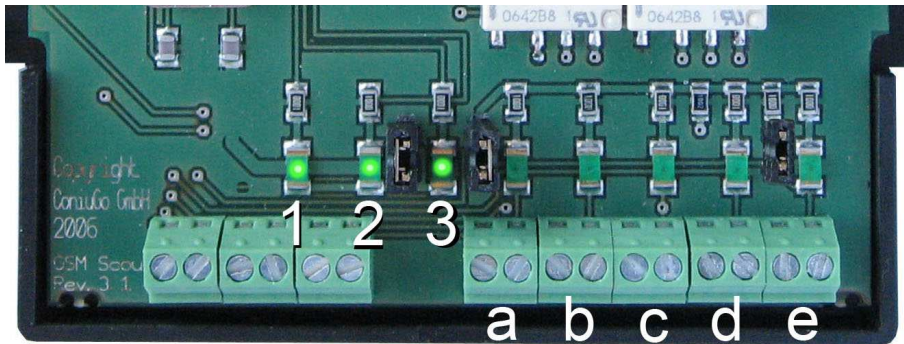
The devices of the GSM Scout Series with IP 31 enclosure have two mounting holes („B“ Fig.1) at the enclosure. Please note that the other two holes („A“ Fig.1) are to be used to fasten the lid of the enclosure. (look at fig.1)

## 5. Description of switching functions

The device **GSM Scout** is able to send SMS, if a specific event that is detectat at one of the input contacts occurs. The devices are foreseen to secure high value objects as houses, boats, cars or trucks. All events are sent to a receiver by using SMS- short message service. In addition, the **GSM Scout active** is capable, to re-

ceive SMS. So, it is possible to perform remote functions. The **GSM Scout GPS** is able permanently to detect the current geographic position of an object as well as to send a message if a stored position is left.

**Fig.2**



The GSM Scout series has 5 inputs for switches or relay contacts. (referring Fig.2 **a=** AUX (auxilliaris), **b=** FEUER (fire), **c=** WASSER (water), **d=** EINBRUCH (robbery), **e=** SCHARF (set device active). No voltage is allowed to be connected to those inputs. They are solely foreseen for switches or relay- contacts without any electrical potential!



**The contacts of the inputs solely are foreseen for switches without any electrical potential. It is not allowed to connect any voltage.**

- With the input „**SCHARF**“ (set device active) (**e**) the functiones of the device are activated. After the contact is closed the GSM Scout becomes **active after a delay time of 40 seconds**. This delay time is programmed in order to leave the object (e.g. house). The light emitting diode („LED“) corresponding with the input shows the status of the input (switch closed / open). It does not indicate that the device really is active. Whether the device is active or not is indicated by the “status LED 1 “ at the left side of the device’s housing.



### Set device active by SMS:

In addition to the input it is possible to set the device active / de-active by SMS. This can be done by sending an SMS with the text „**Scharf**“ (set active) or „**Unscharf**“ (set de-active) to the device. Please note the use of capital letters! If the device is activated or de-activated depends on the event that happened at last! The corresponding SMS as well as a change at the input is performed by the device!

- The input „**Einbruch**“ (**robbery**) is foreseen for a slope of contacts (e.g. at doors and windows). At this input as well a LED indicates, whether the contact is closed or open. If this input is not used it is recommended to close the input by using a short wire.



The input „**Einbruch**“ (**robbery**) is the only one for which the open circuit is understood as the event (**robbery**). If the contact is open the SMS is sent (SMS only, if device activated).



In order to allow an entering of the object (e.g. house) without causing a alarme by SMS a delay of 30 seconds is foreseen. The SMS „**Einbruch**“ (**robbery**) is sent with a delay of 30 seconds.



Please notice that the input „**Einbruch**“ (**robbery**) may have another function when the Ssf- functions are used (for details please look at chapter 12 „**Ssf- functions**“).

- The input „**Wasser**“ (water) is for the contact of a water-level switch. The LED corresponding to this input shows the condition of this input. A SMS is sent, if the switch or contact of this input is closed (SMS only, if the device is switched into the actice mode).
- The input „**Feuer**“ (fire) is for the contact of a fire- or smoke- detector. The LED corresponding to this input shows the condition of this input. A SMS is sent, if the switch or contact of this input is closed (SMS only, if the device is switched into the actice mode).
- The input „**Aux**“ (auxilliaries) is for any deliberately switching contact. The LED corresponding to this input shows the condition of this input. A SMS is

sent, if the switch or contact of this input is closed (SMS only, if the device is switched into the active mode).

### **The functionality is indicated by three additional LED:**

- LED 1 (Fig.2) shows, if the device is activated or deactivated. The activation / de-activation is set by the input „**Scharf**“ (active). A delay of 40 seconds is programmed. If the device is set active by an SMS no time delay is programmed. The GSM Scout will become active immediately after the SMS is arrived.
- LED 2 (Fig.2) shows, if the device was able to establish the contact to the provider of the GSM network.
- LED 3 (Fig.2) shows, if the GSM Scout successfully was able to read all required informations from the phonebook of the SIM- card.

### **Additional functions of the LED 1 to 3:**

- After the device is set into function all three LED are enlightened for a short moment. This is a **test for function** that shows the the device is operating.

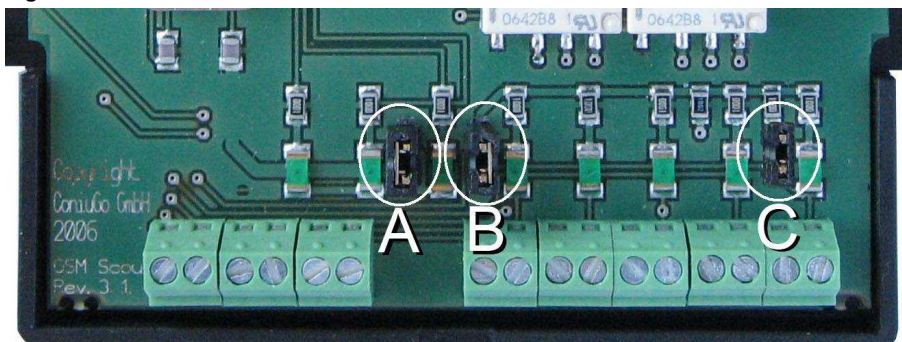


**Please note that in case of using the Ssf- functions the LED are flashing with a high frequency in order to show that the device is using the Ssf- settings (refer to chapter 12 „Ssf- functions“).**

- As long as the GSM Scout actively uses the GSM- modem (reading SIM- card, contact provider, send SMS) all three LED are enlightened permanently. Going into the sleep- mode the LED perform a **blinking** in order to save energy. Even in the sleep- mode the indication- function of the LED is active.
- **Connecting an additional LED as external indicator for „active” or „de-active” modus**

If it is necessary to indicate the status of the GSM Scout out of the housing of the device, an additional green LED (calbe as long as desired) can be connected (refer to „C” in Fig.3). The resistor for this LED is provided on the PCB of the GSM Scout.

Fig.3



- **Deactivation of the LED (switch off):**
  - If the user likes to deactivate the LED (e.g. to save energy or to avoid that the device will be recognised in a dark room) the two jumper have to be taken out („A“ and „B“ in Fig.3). By putting in the jumper LED- function is activated again.

Please note the following hints regarding the function of the device:



**Dependant from the GSM- provider it may happen that the transmission of SMS is delayed. Normally SME are transmitted within a few seconds.**



**Running the system in a GSM- network cost will cause costs. If wrong phone numbers are used it may happen that high costs are resulting. ConiGo® GmbH is not liable for such costs caused by faults in configuration. It is recommended to test carefully the correct function and programming of the device.**

## 6. Configuration by using the phonebook

The phone numbers to which the GSM Scout will send the SMS are read from the **phonebook of the SIM- card**. Please make the necessary configuration of those phonebook entries as follows:

- Insert the SIM- card into a mobile phone.
- Switch off / deactivate the PIN- number of the SIM- card by the specific function of the mobile phone (menue safety). (SIM- cards, that do not allow the de- activation of the PIN are not suited).
- Move to the menue „PHONEBOOK“ of your mobile phone. Choose the phonebook **that is stored on the SIM- card**. You are able to check if you have configured the right phonebook by inserting the SIM- card into another mobile phone. If you are able to read the phonebook there the phonebook of the SIM- card is used.
- As shown in the example below, please put in four names and phone numbers. Every entry addresses a spcific event:

SIM- card	event that is addressed
Name: phone book	
<b>Sms1</b> +49301234567	← Einbruch (burglary)
<b>Sms2</b>	← Wasser (water)
<b>Sms3</b> 017123456789	← Feuer (fire)
<b>Sms4</b> 017876543210	← Aux (auxilliaris)

You can choose the Telephone numbers deliberately. If you do **not want to use** an event, please, **do not put in a phone number**. In the example shown above **Sms2** is unused. However, the phonebook entry SMS2 has to be made in the phonebook, because the GSM Scout is searching for all four entries when starting!



**Please note that in case of wrongly entered phone numbers a correct function of the device is not possible. The GSM Scout then is not able to send the SMS to the correct recipient.**



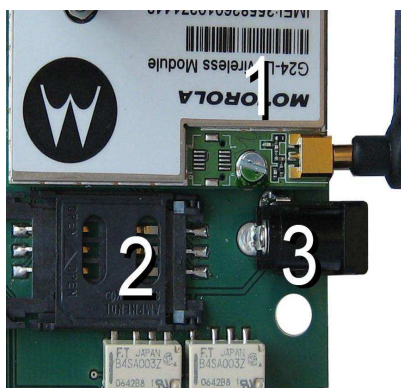
**All 4 entries have to be made in the phonebook of the SIM- card. Please as well take care for using capitals for the first character. Please note as well that for a GSM Scout GPS additional entries on the SIM- card have to be made (for details, refer to chapter 11)**



**Please note that for use of the Ssf- functions the following entry has to be made in the phonebook of the SIM- card:**  
**Ssf0000000000**  
 (look for details in chapter 12 „Ssf- funktions“).

## 7. Insert SIM- card and connecting to the aerial

Fig.4



When SIM- card is inserted, the aerial is connected and the power supply is attached the GSM Scout is ready for use:

- Open the housing of the device and insert the SIM- card into the SIM- card connector („2“ Fig.4).
- Please close the housing carefully.
- Attach the aerial at the antenna connector at the right side of the

housing („1“ Fig.4). Every antenna for GSM 900 / 1800 with an MMCX-connector is suited.

## 8. Handling and use of the device

When all SIM- entries are done and the SIM is insertet, you can connect the GSM Scout with the power- supply („3“ Fig.4):

- In any case for power- supply the voltage that is shown on the identification abel is allowed. This is **4.5 to 6 Volt** or **11 to 35 Volt DC**. The plus line has to be attached to the inner contact of the DC- connector:



- **The correct voltage, as indicated on the identification label has to be applied!**
- For other power- supply (12 Volt battery, mains power 115 / 230 Volt, etc.) you can buy suited accessories from the manufacturer.
- As well available from the manufacturer are accu- stations and charging- cables for different types of accu and batteries.

After the power supply was connected the device will perform a self- test. LED 1, LED 2 and LED 3 (look at Fig.2) flash once for a short time.



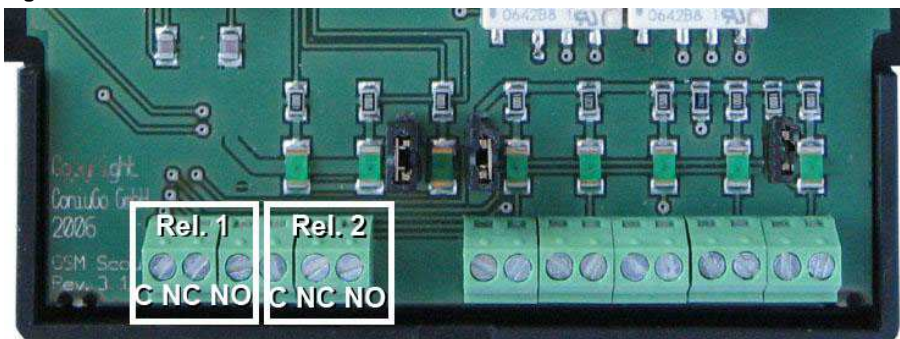
**Please note: When the Ssf-Function is activated all three LED will flash in a high frequency.**

To control the function of the device please look at LED 2 and LED 3. If the device is set to the „active mode” those LED show whether the GSM Scout get contact to the GSM- provider (LED 2) and whether the informations of the SIM- card had been read successfully (LED 3). If so, you should test the device by performing the events at the inputs. To do this you can short circuit the inputs **Aux** („a“ Fig.2) **Feuer** („b“ Fig.2) und **Wasser** („c“ Fig.2) by a short wire. Because input 4 has an inverted function („d“ Fig.2) this event will send a SMS- message if the input is left open.

## 9. Remote switching (GSM Scout active /GPS only)

Exceeding the functionality of the GSM Scout the **GSM Scout active** and **GSM Scout GPS** have the additional feature that two relays are built in that allow remote switching functions. The termination block for those relays can be found on the PCB at the left side (Fig. 5).

Fig.5



The digital out are relays that provide a „common“, a „normally open“ and a „normally closed“ contact:

C („common“)  
 NC („normally closed“)  
 NO („normally open“)

The GSM Scout with those relays react on the following SMS that have to be sent at the phone number of the SIM- card that is inserted into the device. (Please type in the space characters in your SMS!):

- SMS with the text **Rel.1 +** resp. **Rel.2 +** mean that the specific relay will be switched on.
- SMS with the text **Rel.1 -** resp. **Rel.2 -** mean that the specific relay will be switched off.
- SMS with the text **Rel.1 nnn** resp. **Rel.2 nnn** mean that the specific relay will be switches om for nnn seconds. The value of nnn may vary between 001 and 600 seconds for on- times 1 up to 600 sekonds (the leading “zero” have to be in the SMS- text!).
- SMS that do not comply with the definition mentioned above will be ignored by the device.

**nnn** is the definition off he relay activation:

- 000 – the relay is switched on permanently
- 999 – the relay is switched off permanently
- 001...600 the relay is switched on for 1 ... 600 seconds



**It always is possible that the GSM- network has a malfunction for a while. Therefore it may happen that you are unable to transfer a command by SMS. For that reason it is strongly recommended not to switch on permanently a dangerous device by the GSM Scout. Use the remote command with a defined time in those cases to make sure that the device will be switched off after the time that was set by SMS is over.**



**The contacts of the relays are able to switch 24 Volt DC and 1 Amp. Never connect those relay- contacts with mains power (115 / 230 Volt)!**

In addition to the switching of a relay by an incoming SMS both relays as well can be switched **directly by an event** for a pre-defined time interval. So, a message over the GSM network can be avoided and an actor like a sirene or a pump can be activated directly (**general alarm**).



**Using the general alarm it is not able to select one of the 4 possible events! Any event (fire alarm, water alarm, etc.) will trigger the general alarm.**

To activate the **general alarm** (without incoming SMS) the following Zum Einrichten eines **Generalalarms** (ohne eingehende SMS) sind folgende Einträge im Telefonbuch der SIM Karte erforderlich:

**Memory of the SIM-card**

<u>name</u>	<u>phone number</u>
Relais 1	nnn
Relais 2	nnn

**Notice:** Use the german word **Relais** and not the english word **Relay!**

**nnn** is the definition of the relay activation:



- 000 – the relay is switched on permanently
- 999 – the relay is switched off permanently
- 001...600 the relay is switched on for 1 ... 600 seconds

Example: in the phonebook is stored **Relais1 – 250**

If an event occurs, the relay1 will be switched on for 250 seconds.

## 10. Location by GPS (GSM Scout GPS only)

In addition to the messaging and remote control function the **GSM Scout GPS** is capable of transferring a geographic position by use of SMS.

This function is usable in two different kinds: **The device is able to send an SMS if a defined homeposition was left**. Another possible function is the **request of the current position via SMS**.

To use this functions it is necessary to enter additional entries into the phonebook. Of the SIM-card. Four additional entries have to be made: **Pos1 Pos2 Pos3** and **Gps**

Here is an example, how this is to be done:

name	phone number	reason
<b>Pos1</b>	<b>empty or deliberately</b>	<b>degree of latitude N or S</b>
<b>Pos2</b>	<b>empty or deliberately</b>	<b>degree of longitude E or W</b>
<b>Pos3</b>	<b>empty or deliberately</b>	<b>length and width of the aerea</b>
<b>Gps</b>	<b>Phone number</b>	<b>recipient of the position</b>

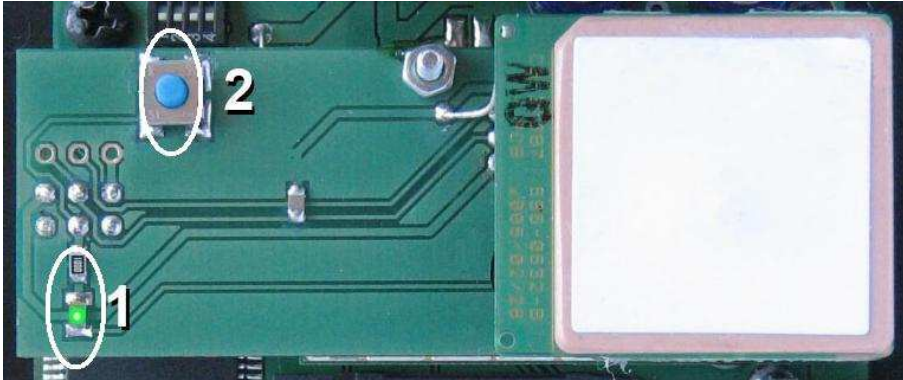


The phonebook entries **Pos1 Pos2 Pos3** and **Gps** have to be done!

**Pos1** and **Pos2** describe the degree of latitude and degree of longitude.

The co-ordinates are stored in the device encoded according to the NMEA- protocol (NMEA= National Marine Electronics Association), **as soon as the GPS- receiver has determined a valid position**. In that case (valid position) the green LED („1“ in Fig.6) will be enlightened.

Fig.6



The storing of the position in the phonebook is performed manually **by pressing the „positioning button“** („2“ Fig.6) or **automatically by setting the GSM Scout GPS into the „activity mode“** (directly at the device or by SMS).

The entry in the phonebook **Pos3x** is foreseen to define an „area of allowed location“ in steps of 100 meter. In the example given at page 16 **Pos37** is given. In this example the 7 in **Pos3x** **defines** a square of  $7 \times 100 = 700$  meters (length / width), with the position stored on the SIM- card in the middle. If this area is left by the object the device will send a SMS to the phone number that is stored in the phonebook entry **GPS**. It is possible to enter in **Pos3x** values for x from 1 to 99. So, values for the square area from 100 to 9900 meter are possible.



**To avoid unwanted messages caused by „unstable GPS-position“ it is recommended to define a minimum length and width of area of 300 meter (example: Pos33).**

If the object does leave this aerea the device will send a SMS with the following content:

**GPS Alarm: 1234 m** (example)

The **1234** at „meter“ define the distance to the home position of the object that was stored at least.

### **Request of the GPS Position:**

To get the information of the last valid GPS- position in an SMS Um sich auf eine SMS you have to send a SMS with the text **Gps** to the GSM Scout. The device then will send the actual position to the phone number that is stored in the phonebook-enty **Gps**. How this GPS- co-ordinates are to be interpreted is explained in **chapter 11**.

### **Request for the last valid GPS position:**

It may happen that a request for a GPS-Position will be answered with a **not valid** position, e.g. if the GPS- receiver is not able to receive GPS- signals from the GPS- satellites. Not valid positions are marked in the NMEA- string by a **V** instead of an **A** (details are explained in chapter 11). If this happens for a longer period of time it may happen that an object is stolen or stored in a building. This will make it impossible for the GPS- receiver to get in contact wirh the GPS- satellites.

In that case it is possible to ask the GSM Scout GPS for the last valid position that was received (in case the system still is connected to power). This psition is stored in the GSM Scout GPS each and every time in order to allow that this last position can be sent by SMS!

This GPS- position that was valid at least can be requested by an SMS with the text **Lgps** (last GPS).

## 11. Reading of the GPS string (*GSM Scout GPS*)

The **GSM Scout GPS** send the GPS- co-ordinates in a NMEA- string with RMC- format. The encoding of this string is shown in the example below. The informations in the string are separated by comma.

**Example of a string:**

**\$GPRMC,161229.487,A,3723.2475,N,12158.3416,W,0.13,309.62,120598,,\*10**

name	Example	value	Description
message ID	\$GPRMC		RMC protokoll header
time referring to UTC	161229.487		hhmmss.mmmm
status	A		A= data valid / V= data invalid
degree of latitude	3723.2475		ggmm.mmmm
N/S- direction	N		N=north, S=south
degree of longitude	12158.3416		gggmm.mmmm
E/W- direction	W		E=east, W=west
speed over ground	0.13	notes	
direction over ground	309.62	deg.	
Date	120598		ddmmjj
magnetic deviation		deg.	E=east, W=west
Checksum	*10		
<CR><LF>			end of message



**To understand the GPS data those should be put into a suited software in order to show those on a map. You may use the following links in internet:**

[http://www.coniugo.de/html/gps\\_tracking.html](http://www.coniugo.de/html/gps_tracking.html)

or

<http://earth.google.de/>

### a.) Input of data on the ConiuGo Webpage

\$GPRMC,102253.146,A,5239.7287.N.01317.1914.E.0.08.263.53.050706,\*,\*04

deg. latitude 52°, 39 minutes, 43,7 seconds [seconds in decimal (60\*0.7287)]

deg. longitude 13°, 17 minutes, 11 seconds [seconds in decimal (60\*0.1914)]

### b.) Input of data in Google Earth

\$GPRMC,102253.146,A,5239.7287.N.01317.1914.E.0.08.263.53.050706,\*,\*04

deg. latitude 52°, 39,7287 minutes

deg. longitude 13°, 17,1914 minutes

put in as follows: (under "Fly to"):

52\_39.7287'\_N,\_13\_17.1914'\_E



In the shown example the „underline- chars“ have to be put in as „space“

## 12. Ssf – spezial SIM funktiones

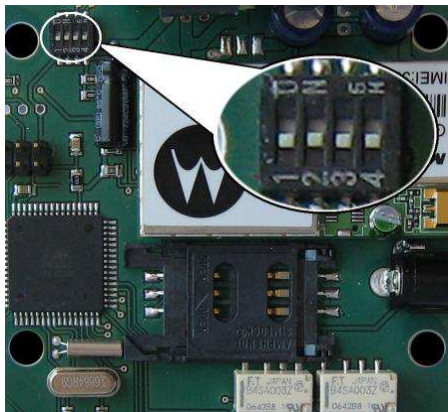
Ssf is a special mode allowing the user to activate a lot of enhanced and special functions of the GSM Scout.



The Ssf- functions are foreseen for experienced users, in order to make the GSM Scout able to provide difficult solutions for SMS messaging. There is no need to use the Ssf- functions. In any case it is recommended at first to use the device with its standard functions in order to experience how it works.

To activate the Ssf- function the setting of the Mini- DIP- switches 1 and 2 has to be changed:

Fig.7



1	2	
On	On	Scout & Scout activ
Off	On	Not used
<b>on</b>	<b>off</b>	<b>Ssf- functions</b>
Off	Off	Scout GPS



Using the Ssf- mode the GPS function of the *GSM Scout GPS* is de- activated. This function has to be re- activated by using Ssf- key 8.

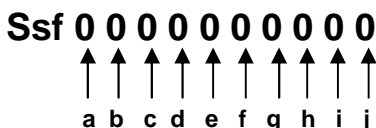
The Ssf- functions are activated by a key that is stored on the SIM- card.

Name	Number
Ssf000000000	„none“



Please take in mind that the Ssf- key necessarily has to be found on the SIM- card (phonebook):  
Ssf000000000

The Ssf- key defines ten different special functions by **ten different positions that have to be set to „0“ or „1“**. In the example as shown above all funktiones are de- activated by „0“. To activate a Ssf- function the specific position of the key has to be set from „0“ to „1“. The ten positiones can handle the following functions:



- a.) Send Information of send quality with every SMS
- b.) Send value of the account of prepaid- SIM with every SMS
- c.) Use Input 1 as a non-inverting input
- d.) Send an acknowledge for all incoming SMS
- e.) Use a PIN- identification for incoming SMS
- f.) Configurable SMS texts
- g.) Reserved for future use
- h.) Activation of GPS funktion
- i.) Store actual GPS- position when set to „active mode“ (scharf)
- j.) Parallel SMS to all stored phonebook numbers

#### a.) Send information of send quality with every SMS (Ssf- key 1)

If his key is set to 1 the GSM Scout measures the send quality and sends this information attached to every SMS text. The send quality information means:

- 1 – 4:           nearly no reception**
- 5 – 8:           bad reception**
- 9 – 24:         fair to good reception**
- 25 – 31:        very good reception**

#### b.) Send value of the account of prepaid- SIM with every SMS

If this key is set to 1 the GSM Scout determines the value of the account of a prepaid- SIM- card. This information is attached to every SMS text.

To make this function work the service number for account- transmission of the GSM- provider has to be stored on the SIM- card. Um. The name in the phonebook necessarily has to be **Geb**. As phone no. the wird die service number of the des providers has to be stored.

If no service number is stored the feature of account transmission will not work.



**If this Ssf- function is activated the phonebook enty Geb has to be stored in the SIM- card. Else the device will not work properly.**

If it was not possible to read the account of the prepaid SIM „Keine Gebuehren Info!“ or „No charge info !“ will be sent.

### Service numbers (for Germany):

<b>O2:</b>	<b>*101#</b>
<b>Vodafone:</b>	<b>*102#</b>
<b>E-Plus:</b>	<b>Please ask the provider!</b>
<b>T-Mobil:</b>	<b>*100#</b>

#### c.) Use Input 1 as a non-inverting input (Ssf- key 3)

If this key is set to 1 the first input „Einbruch“ (robbery) is working as non- inverting input with a delay of 30 seconds. To trigger this input the contact now has to be closed.

#### d.) Send an acknowledge for all incoming SMS (Ssf- key 4)

If this key is set to 1 the GSM Scout sends an acknowledge to all incoming SMS (in case the SMS is recognised by the device). The SMS is sent to the phone number from which the SMS was sent. This function works for all SMS with interpretable text (e.g. for the relays), but not for any other SMS (e.g. messages of the provider, spam-SMS, etc.).

#### e.) Use a PIN- identification for incoming SMS (Ssf- key 5)

If this key is set to 1 the GSM Scout searches a phonebook entry on the SIM- card with the name **PIN** which provides a PIN- No. with 4 numbers. A new entry on the SIM- card has to be made to use this feature:

#### Example:

Name	Rufnummer
<b>Pin0385</b>	<b>deliberately</b>

The name contains the recognition word **Pin** and the foreseen password of 4 chars length.

If this Ssf- function is activated only those incoming SMS are processed by the device in which this PIN is set in front of the text. E.g. **Rel.1 005** has to be set to **0385Rel.1 005** in order to be processed.

#### f.) Configurable SMS texts (Ssf- key 6)

If this key is set to 1 the SMS texts are configurable nearly deliberately by the user. Configurable texts are attached to the SMS identification at the name of the phone-



book entry. If no text is attached the standard text **Alarm1** to **Alarm4** will be used. The text may have a length of up to 12 characters.

#### Example:

Name		SMS that is sent	Remark
<b>Sms1</b>	→	<b>Alarm1</b>	<b>Standardtext</b>
<b>Sms2Failure</b>	→	<b>Failure</b>	<b>individual text</b>
<b>Sms3Heating</b>	→	<b>Heating</b>	<b>individual text</b>
<b>Sms4123456789012345</b>	→	<b>123456789012</b>	<b>Numbers, more than 12 chars</b>



**Please note that using configurable text a maximum of 12 characters will be sent (as shown in the example of SMS 4).**

#### g.) Reserved for future use (Ssf- key 7)

This key is reserved for future functions and has to be set to „0“.

#### h.) Activation of GPS funktion (Ssf- key 8)

If this key is set to 1, the GPS funktion is activated. To use this the device needs a GPS receiver. If used without GPS receiver a malfunction of the GSM Scout will happen. If GPS funktion is used the phonebook entries have to be made according to the description of **chapter 10**.

#### i.) Store actual GPS- position when set to „active mode“ (scharf) (Ssf- key 9)

If this key is set to 1 gesetzt, the GSM Scout will update and store the position each and every time when the device is set to “active mode”. If the device is set to “active mode” (scharf) the position that is stored on the SIM- card will be updated with the next valid position which is acquired by the GPS receiver. This funktion allows the owner of a mobile object like a car or a ship that he only has to switch the GSM Scout into the „activity mode“ when leaving. If a new position is found by the GPS receiver this automatically is stored as the new „Home position“.



**It is necessary that the device has a position with fair GPS reception. If no position is acquired by the GPS receiver the device will wait until a new valid position is found.**

#### j.) Parallel SMS to all stored phonebook numbers (Ssf- key 10)

If this key is set to 1, all events that are recognised at the inputs are sent as SMS to all phone numbers that are stored on the SIM- card.

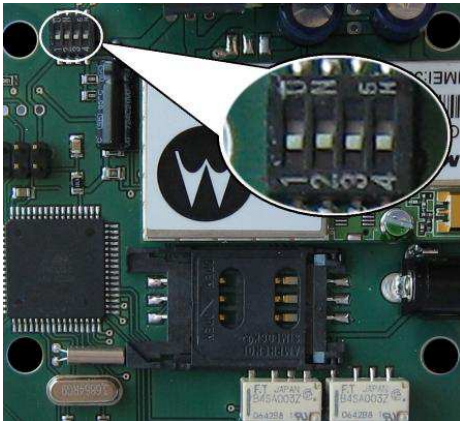
# 13. Change of the language version

The GSM Scout Serie can send out SMS- messages in german, english, french and spanish language. The language version can be changed by the user by setting of the DIP- switches 3 and 4.



The DIP switches 1 and 2 are set by the manufacturer to positions that are not necessarily those that are shown below in Fig. 8. This DIP switches handle the function of hardware and software and are NOT allowed to be changed by the customer. Changing of those switches can cause a malfunction of the whole device. So please, don't change DIP switches 1 and 2!

Fig.8



3	4	
off	off	German
off	on	English
on	off	French
on	on	Espagnol

## content of the standard- messages in different languages

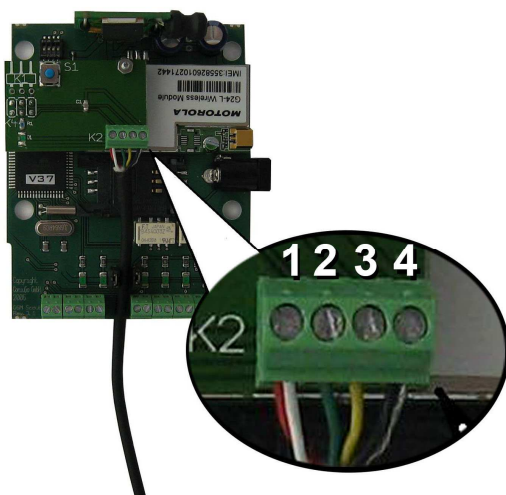
german	English	french	spanish
Einbruch	Alarm of robbery	Alarme d affraction	Alarma del robo
Wasser- Alarm	Alarm of water	Alarme d eau	Alarma del agua
Feuer- Alarm	Alarm of fire	Alarme d feu	Alarma del fuego
Alarm Zusatzeingang	Alarm of auxiliaries	Alarme additionelle	Alarma del auxilio

## 14. Connecting an external GPS receiver

If you have purchased the GSM Scout GPS with external GPS-receiver you are able to mount the GPS receiver apart from the GSM Scout at a position of good reception. The external GPS- Empfänger has a magnet at the back of the enclosure to fix it to ferromagnetic surfaces.

After mounting the external GPS- receiver please connect the cables of the receiver to the connection block (look at Fig.9). The GPS- receiver has 4 lines that have to be connected as follows:

Fig.9



1 = red/white	(VCC)
2 = green	(TXD)
3 = yellow	(RXD)
4 = black/shield	(GND)

## 15. Troubleshooting

Problem	Manage the problem
<p><b>None of the LED 1 – 3 is permanently enlightened after flashing or LED test</b>  <i>(The device is not switched to the „active mode“t)</i></p>	<p>If the device is switched to the „active mode“ (scharf) the LED at the input „SCHARF“ is enlightened permanently afer 40 seconds.</p>
<p><b>LED 2 is not entighted permanently</b>  <i>(No GSM- network is to be found)</i></p>	<p>Please check, if the PIN of the SIM-card is deactivated.</p> <p>Please check, if the antenna is connected properly and in a position able to receive the GSM- network.</p> <p>Please check with a mobile phone, if it is possible to use the GSM network at the position of the GSM Scout.</p> <p>Please check the function of the SIM- card Karte by using a mobile phone.</p>
<p><b>LED 3 is not entighted permanently</b>  <i>(The device does not find the informations in the phone-book of the SIM- card)</i></p>	<p>Please check, if the SIM- card is in a correct position.</p> <p>Please check, if all informations are stored correctly in the phonebook of the SIM- card.</p> <p>Please make sure that the informations really are stored in the phonebook of the SIM- card and not in the phonebook of the mobile phone! To verify this, please put the SIM- card into another mobile phone. If you don't find the informations in the phonebook then it is for sure that they are not on the SIM- card.</p>

## 16. Scope of supply and accessories

The scope of supply of the GSM Scout Series is:

- The device itself
- Screws for the enclosure
- Manual for use
- Miniature antenna MMCX
- Cable with DC-plug
- Small screw driver
- 



**The scope of supply might vary in those cases as distributors have made special agreements with the manufacturer.**

For the GSM Scout Series the following accessories are available:

Indoor window antenna, 1, 5 m, MMCX- connector	(300300304)
Plug-in power supply 230 V AC / 12 V DC	(305307214)
Plug-in power supply 230 V AC / 6 V DC	(305307213)
Omnidirectional antenna PUK (MMCX) for outdoor use	(300303310)

Other accessories on request.