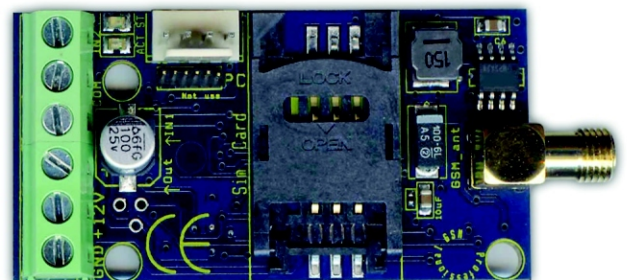


# Installation manual

## **SMSPhone**



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### Description and functions of the device

- the GSM communicator may be used as a complement to alarm control systems as a 2 input GSM transmitter.
- capable of sending voice or SMS messages to 8 phone numbers. Voice messages with a length of up to 8 seconds can be sent concerning the 2 inputs and power failure. An extra identification message may be recorded (up to 16 seconds), which is played before the alarm message.
- the open collector (OC) output of the device may be used for control with caller ID.
- capable of forwarding SMS messages received by the SIM card to a preset phone number.
- monitors power failure and GSM signal strength; GSM signal strength can be read out and drawn up as a one-hour resolution graph with the programming software.
- possesses a 16.000 event list, which records signals, GSM status, incoming calls and phone numbers.
- PC programming is possible with SPPhone software and optional programming cable!

### Description of the terminal block

I2, C, I1	Input2 and Input1 controlled by short-circuit or cut in relation to COM port
O	Output of the module: OC=open collector
+, -	Power supply: += 9-18 VDC; -= GND

### Installation instructions

- Check signal strength with your mobile. It is possible that signal strength is not sufficient at the desired place. If so, modify device location before installation.
- Locate device far from electromagnetic interferences, such as electric motors, or transformer of the alarm system.
- Do not install device in wet or high humid places.
- Connection of the antenna: You may connect the antenna to a SMA plug. In case of poor signal strength use a higher gain antenna.
- Disable PIN requirement, voice mail, and call notification on your SIM card.
- Occasionally a newly bought SIM card needs to be activated (usually by making an outgoing call).
- Caller ID function needs to be activated on your SIM card by the Mobile Service Provider (with some models it is not activated by default).
- Insert SIM card.
- Connect antenna to device.
- Connect as indicated.
- Device is ready to be connected to power supply. Make sure that the power supply is sufficient for the operation of the device. The module's resting current is 20mA, but may reach 300mA during communication.
- After connecting to the power supply, the red LED goes on, which indicates that the device is trying to contact the GSM tower (up to 1 min).
- When the red LED light goes off and the green LED is flashing, the module is ready for operation and has connected to the network. The number of flashes indicates signal strength.
- For programming the power supply needs to be connected.

### LED signals

LED status = green

ACT LED = red

Number of flashes: Number of LED flashes between the breaks.

Only green LED flashes	No error, GSM module connected, the number of LED flashes shows signal strength. 1..2=poor signal strength, 3=sufficient, 4..5=excellent
Green LED on	GSM module's connection rejected.
Red LED on	Shows initialization on start-up, otherwise an event message is being sent (SMS, voice call).

Green and red flashes at the same time	<p>Error code by the number of flashes:</p> <ul style="list-style-type: none"> <li>1 flash: GSM module initialisation</li> <li>2 flashes: GSM module defective</li> <li>3 flashes: SIM card not inserted</li> <li>4 flashes: SIM card blocked by PIN code</li> <li>10 flashes: Modem mode</li> </ul>
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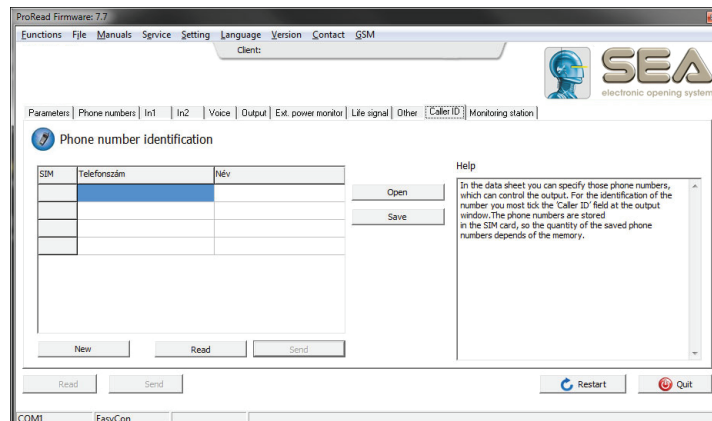
## Control with caller ID function

You need to have your Service Provider enable the caller ID function in the SIM card of your GSM module. The caller ID function needs to be enabled in each telephone from which you would like to control the device.

The GSM module accepts phone numbers stored on the SIM card, therefore depending on the SIM card 250 or 500 numbers can be set. You may add phone numbers to the SIM card by inserting it to a regular mobile phone, or you may view/edit the SIM card's address book in the **Caller ID** tab. First you need to upload it with the **Read** button, then after editing write it in with the **Send** button. The address book can be imported/exported in EXCEL csv format with the **Open/Save** button.

The caller ID function can be switched off in the GSM module (**Output tab / Control with Caller ID**), in this case the device accepts every phone number. The caller ID function can be used for output control (**Output tab / Control with Incoming Call**). The module provides feedback about status with the number of ringtones:

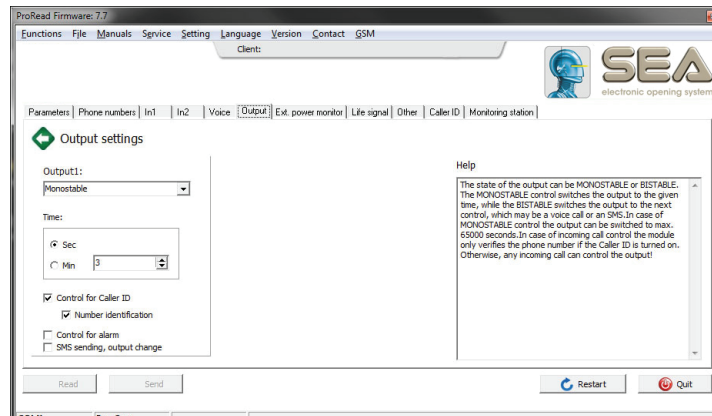
- Output control in bistable mode: few ringtones (0-1) = control, many ringtones (3-4) = end of control



## Output settings

Output modes can be set in the **Output tab**.

- MONOstable mode: output is controlled for the preset time, then releases (1-65000 seconds).
- Bistable (two-state) mode: changes state on every command and stays in that state indefinitely.

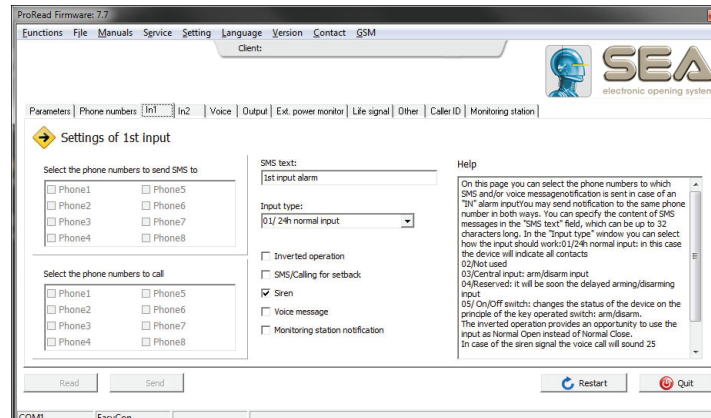


## Input settings

Inputs can be used in different operation modes [In (e.g.:1;2)tab/Types of Input]:

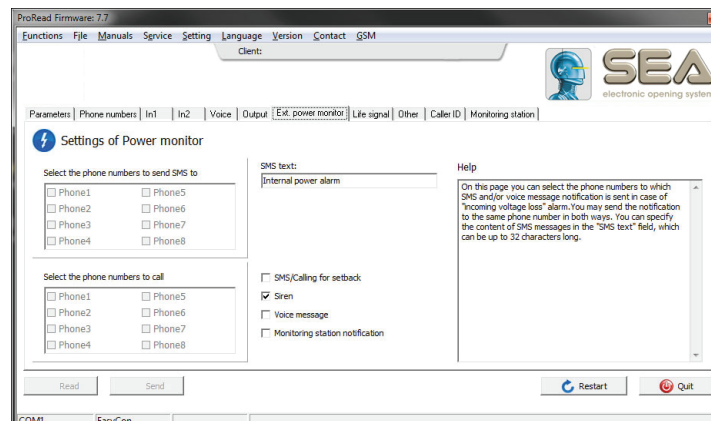
- 24h normal: continuously monitors input, in case of alarm sends signals.
- On (e.g.:1;2) tab/**Inverted Operation**: in normal position input expects short-circuit, if function is checked in normal position it expects cut.
- SMS/Voice call about restore: if checked, notification is received about input restore also. In case of SMS (**Other/Restore**) message is sent.
- **Siren sound**: In case of VOICE call, emits a siren sound (20-30 seconds).
- **Sending a voice message**: In case of VOICE call, it plays recorded voice.

Attention! If neither siren sound, nor voice message is checked, GSM automatically disconnects line, and there is no sound! Siren sound and voice message can be used together, in this case siren sounds shortly then voice message is played.



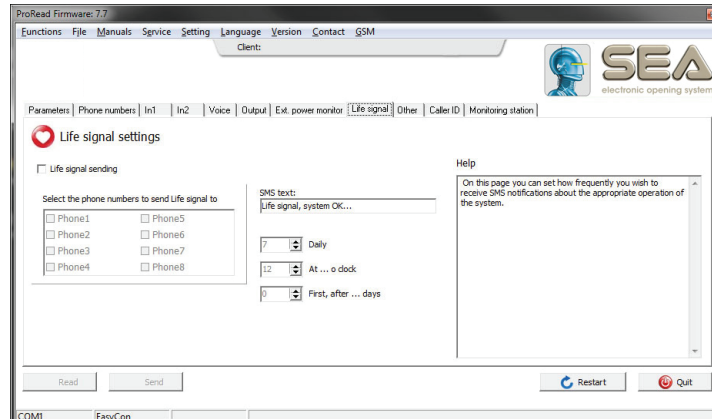
## Power monitor

The device constantly monitors incoming voltage (12V, GND terminal block), if voltage goes below 10V (external battery low) it is capable of sending alarm. Notification about restore can be requested.



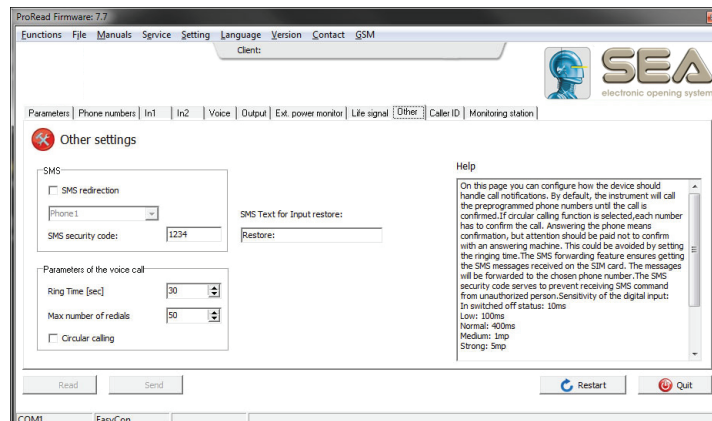
## Life signal

Settings can be made on **Life Signal** tab: it is recommended to request a test message every week or every second week to check proper operation of device. Frequency (every 1-255 days) and time of message can be set. Only full hours of the clock can be set: e.g. 12:00, 13:00, etc. You can also set how many days after setting you wish to receive the first message. Life signal can only be requested as SMS, with a custom message.



## SMS forward

**Other tab/SMS Forward:** with this function the module forwards every uninterpretable message to a preset phone number. This is a useful function to receive the pre-paid SIM card balance message.



## Description of voice calls

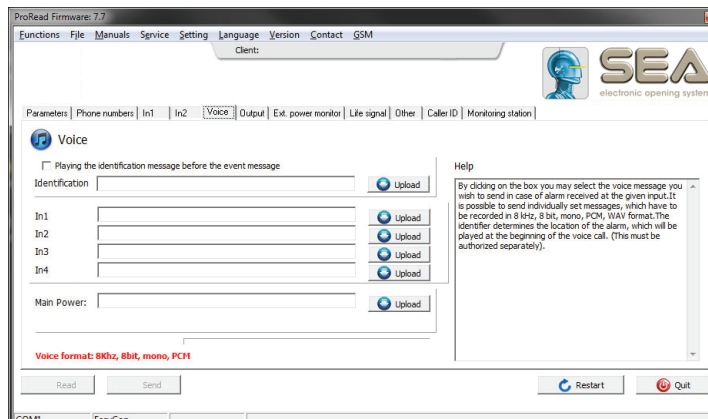
Every outgoing VOICE call needs to be confirmed by user. Answering the phone qualifies as confirmation, no code or pressing of button is required. You do not need to listen to the siren sound/voice message, answering the phone means confirmation. Avoiding voicemail confirmation, your ringtone time needs to be set shorter than your voicemail pickup. This way the module disconnects the phone line before voicemail confirmation (**Other tab/Ringtone Time**). By default, if anyone answers the call, the alarm is confirmed and no further numbers are called. If circular calling function is turned on, everyone has to confirm the call.

With the number of redials you can set how many outgoing calls the module can make in one alarm period. Unless for a good reason do not set a value less than 50.

An 8 second message can be recorded for the following signals: inputs, power failure alarm.

You may record an identification message of less than 16 seconds. For practical reasons you may want to include the place of installation and name of facility in the message. This message is played before the voice message. Its use is not compulsory.

Order of voice messages: Siren sound + identification message + Alarm message



## Description of SMS

For each input you may set a different SMS message and the phone numbers you wish to send them to. The SMS text message can not be more than 32 characters long; use of special characters is not recommended.

## Calendar of events

The module is capable of storing 16.000 events, which can be read out with the programming software. If you would like to use this function, set the clock of the GSM module, because events will be time stamped accordingly.

Possible events: signals (input, power monitor), GSM status (GSM connected/disconnected), incoming calls with phone numbers. The device stores signal strength and GSM status (connected/disconnected/roaming) for each event. You may prepare an access identification and/or working hour management system by using the calling phone numbers.

## Signal strength monitoring

The module constantly monitors signal strength, and saves the lowest signal strength data every hour. Signal strength data can be read out using the programme, where it is displayed as a graph. When performing maintenance you can check for constant signal strength. The module is capable of storing signal strength data for the last 20 years.

## SMS programming

The basic functions of the device can be programmed via SMS. The SMS text message needs to start with the security code followed by the SMS command and parameter. One message can only contain one command. The default security code is **1234** (the actual command is in bold type).

SMS command	Description	Parameter
<b>1234codXXXX</b>	Security code change	XXXX = new security code, alphanumeric
<b>1234swtel1,tel2,..tel8</b>	Change or delete phone numbers to be notified	Tel1 = telephone number 1 Tel8 = telephone number 8 Tel = d, delete number
<b>1234opar1,par2,tt,k</b>	Installation settings	Par1,2(input)=ssssssvvvvvvv S= send SMS can be "1" or "0" V = send VOICE message These are the messages that belong to the phone numbers.
<b>1234k1</b>	Activate output	Control output
<b>1234k1on</b>	In case of bistable output	Switches on bistable output
<b>1234k1of</b>	In case of bistable output	Switches off bistable output
<b>1234clkhmm</b>	Clock settings	hhmm=hours minutes e.g. 0509 5 o'clock 9 minutes
<b>1234t</b>	Status enquiry	Device sends notification about its actual status.

Programming installation settings:



sssssss = The eight "s" letters determine whether you wish to send SMS to the phone numbers to be notified. If "s"=1 the device sends SMS; if 0 it does not. If you leave it blank, previous settings remain.

vvvvvvv = The eight "v" letters determine whether you wish to send VOICE message to the phone numbers to be notified. If "s"=1 the device makes a voice call; if 0 it does not. If you leave it blank, previous settings remain.

tt = types of the two inputs. "t" can be a value between 0 and 5, a letter "i" (= inverted) or "n" (= non-inverted) needs to be put before the value. E.g.: i1 = normal inverted input

0	Input off
1	24 hour normal input
2	Not used

If you put an "i" before the number, the input will be inverted.

k = type of output. "k" = a value between 1 and 7.

(K)	MONO/BI stable	Alarm control	Caller ID control
1	BI stable	OFF	OFF
2	MONO	ON	OFF
3	BI	ON	OFF
4	MONO	OFF	ON
5	BI	OFF	ON
6	MONO	ON	ON
7	BI	ON	ON

E.g.: Input1 sends SMS to 2nd and 3rd phone number, Input2 sends voice message to 1st phone number, input1 is 24 hour normal, input2 is inverted normal. The output is monostable, controlled with alarm.

1234o011000000000000,00000001000000,,,n1i1,2

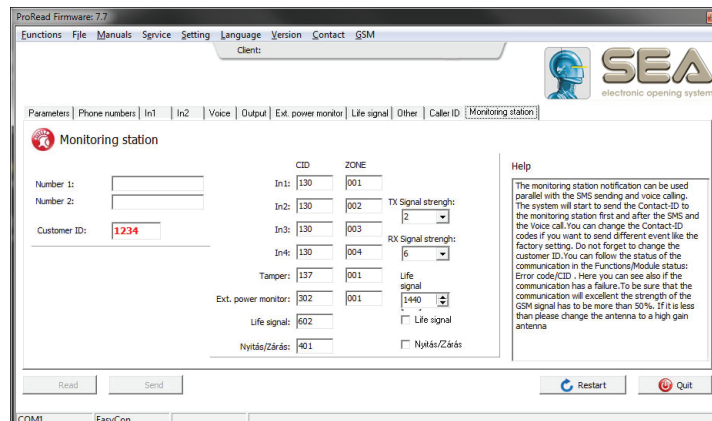


## Monitoring station

The module is capable of sending its signals in Contact ID format to a monitoring station through VOICE channel. Codes and zones might be edited in the **Monitoring Station** tab. Here you can enter the customer code and 2 monitoring station phone numbers. Monitoring station alerts can be used in parallel with other alarms (SMS, VOICE), so the device can notify both remote surveillance and customer. The module first tries to call monitoring station (max. 8 redials) then sends SMS, and finally makes VOICE calls. You may check the status of sending in **Functions menu/Module Status** in Error Codes/CID; in case of error you may also learn the reason for error. You can change your TX/RX levels; however, after modification module needs to be restarted.

**When notifying monitoring station the use of high gain antenna is recommended**, since perfect transmission requires sufficient signal strength (above 60%).

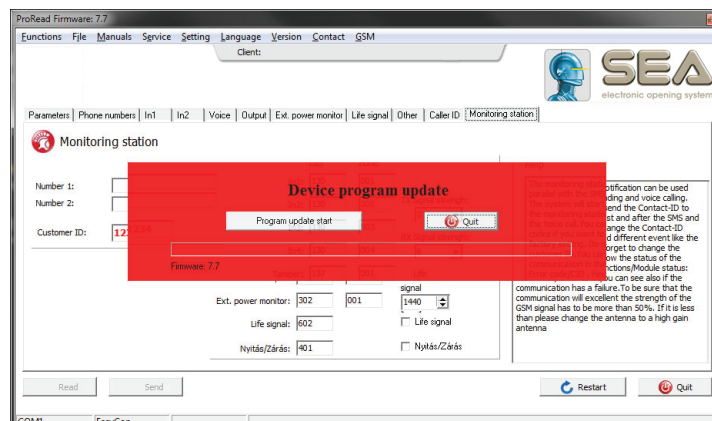
Monitoring station signals: Input1, Input2, Power supply, Periodic life signal. Changeable customer code and changeable zone.



## Software updates

You can easily update the module's software and this way be notified of new functions and error corrections. It is always the programming software that contains the firmware, so make sure to download the latest version. Start **Functions/Software Update** menu, then check the firmware version at the bottom. You may change your current version for an older one; however, it is not recommended. If there is a newer version, press the programme update button, and the programme updates the module in two steps (it takes about 3 minutes). In case of successful update the window closes automatically. If there is no such menu, or the service is unavailable, update in service shops (old modules).

You may view the module's software version in menu **Functions/GSM Software Version**.



## Other commands

In the [Functions/Monitor](#) menu you may monitor and save GSM traffic. In case of defective operation, you should monitor error and send it in email to our technical assistant who will of service.

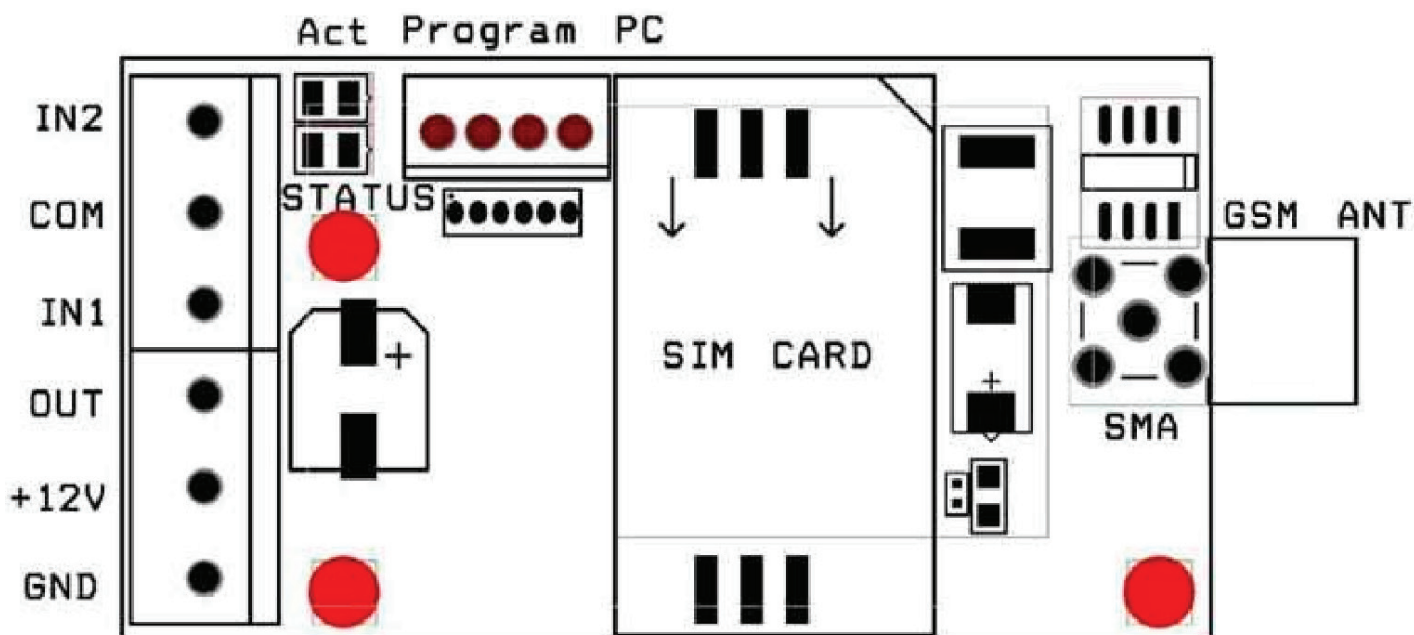
In the [Functions/Module Status](#) menu you may check module status. Input/output states and module error code are shown in real time. The status of Contact ID sending is shown in error code.

The [Description/Circuit Diagram](#) menu shows the circuit diagram of the module in use, helping installation. In [Basic Data](#) menu you may enter data concerning the installation, these can be saved in [File Operations/Save](#), because these data are not stored in the module. Saving data for later use is recommended. The function does not save caller ID phone numbers and recorded voices, only configuration settings.

### The process of PC programming:

- after powering up the module, connect the programming cable
- if the name of the device shows click start
- in the telephone tab enter the phone numbers you wish to notify, then fill in the other tabs
- finally, transfer the configuration and save the settings by clicking the send button
- if you wish to use the caller ID function, enter the telephone numbers in the caller identification tab
- if you do not wish to use the factory default siren sound, upload your pre-recorded messages in the voices tab
- finally, it is recommended to save the configuration in [File Operations](#), filling in the basic data.

## Circuit diagram



## Frequently asked questions and answers

- **Caller identification does not work:** Check with the service provider whether caller ID function is enabled in your module's SIM card. Check the caller ID function in the controller telephone. In the module's settings "control with incoming call" needs to be checked. Check if the phone numbers are stored on the SIM card.
- **ACT LED remains red after alarm:** Module cannot send message either because SIM card has run out of credit or incorrect phone number has been entered. Check the SMS centre number of the module's SIM card.

## TERMS OF SALES

**EFFICACY OF THE FOLLOWING TERMS OF SALE:** the following general terms of sale shall be applied to all orders sent to SEA S.p.A. All sales made by SEA to all costumers are made under the prescription of this terms of sales which are integral part of sale contract and cancel and substitute all apposed clauses or specific negotiations present in order document received from the buyer.

**GENERAL NOTICE** The systems must be assembled exclusively with SEA components, unless specific agreements apply. Non-compliance with the applicable safety standards (European Standards EM12453 – EM 12445) and with good installation practice releases SEA from any responsibilities. SEA shall not be held responsible for any failure to execute a correct and safe installation under the above mentioned standards.

**1) PROPOSED ORDER** The proposed order shall be accepted only prior SEA approval of it. By signing the proposed order, the Buyer shall be bound to enter a purchase agreement, according to the specifications stated in the proposed order.

On the other hand, failure to notify the Buyer of said approval must not be construed as automatic acceptance on the part of SEA.

**2) PERIOD OF THE OFFER** The offer proposed by SEA or by its branch sales department shall be valid for 30 solar days, unless otherwise notified.

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**6) COMPLAINTS** Any complaints and/or claims shall be sent to SEA within 8 solar days from receipt of the goods, proved by adequate supporting documents as to their truthfulness.

**7) SUPPLY** The concerning order will be accepted by SEA without any engagement and subordinately to the possibility to get it's supplies of raw material which is necessary for the production; Eventual completely or partially unsuccessful executions cannot be reason for complains or reservations for damage. SEA supply is strictly limited to the goods of its manufacturing, not including assembly, installation and testing. SEA, therefore, disclaims any responsibility for damage deriving, also to third parties, from non-compliance of safety standards and good practice during installation and use of the purchased products.

**8) WARRANTY** The standard warranty period is 12 months. This warranty time can be extended by means of expedition of the warranty coupon as follows:

**SILVER:** The mechanical components of the operators belonging to this line are guaranteed for 24 months from the date of manufacturing written on the operator.

**GOLD:** The mechanical components of the operators belonging to this line are guaranteed for 36 months from the date of manufacturing written on the operator.

**PLATINUM:** The mechanical components of the operators belonging to this line are guaranteed for 36 months from the date of manufacturing written on the operator. The base warranty (36 months) will be extended for further 24 months (up to a total of 60 months) when it is acquired the certificate of warranty which will be filled in and sent to SEA S.p.A. The electronic devices and the systems of command are guaranteed for 24 months from the date of manufacturing. In case of defective product, SEA undertakes to replace free of charge or to repair the goods provided that they are returned to SEA repair centre. The definition of warranty status is by unquestionable assessment of SEA. The replaced parts shall remain propriety of SEA. Binding upon the parties, the material held in warranty by the Buyer, must be sent back to SEA repair centre with fees prepaid, and shall be dispatched by SEA with carriage forward. The warranty shall not cover any required labour activities.

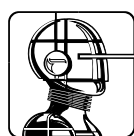
The recognized defects, whatever their nature, shall not produce any responsibility and/or damage claim on the part of the Buyer against SEA. The guarantee is in no case recognized if changes are made to the goods, or in the case of improper use, or in the case of tampering or improper assembly. Furthermore, the warranty shall not apply if SEA products are partly or completely coupled with non-original mechanical and/or electronic components, and in particular, without a specific relevant authorization, and if the Buyer is not making regular payments. The warranty shall not cover damage caused by transport, expendable material, faults due to non-conformity with performance specifications of the products shown in the price list. No indemnification is granted during repairing and/or replacing of the goods in warranty. SEA disclaims any responsibility for damage to objects and persons deriving from non-compliance with safety standards, installation instructions or use of sold goods.

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**10) COMPETENT COURT OF LAW** In case of disputes arising from the application of the agreement, the competent court of law is the tribunal of Teramo. SEA reserves the faculty to make technical changes to improve its own products, which are not in this price list at any moment and without notice. SEA declines any responsibility due to possible mistakes contained inside the present price list caused by printing and/or copying. The present price list cancels and substitutes the previous ones. The Buyer, according to the law No. 196/2003 (privacy code) consents to put his personal data, deriving from the present contract, in SEA archives and electronic files, and he also gives his consent to their treatment for commercial and administrative purposes. Industrial ownership rights: once the Buyer has recognized that SEA has the exclusive legal ownership of the registered SEA brand, he will commit himself to use it in a way which does not reduce the value of these rights, he won't also remove, replace or modify brands or any other particularity from the products. Any kind of replication or use of SEA brand is forbidden as well as of any particularity on the products, unless preventive and expressed authorization by SEA.

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**4) PAYMENTS - 8) GUARANTEE - 10) COMPETENT COURT OF LOW**



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