

Manual

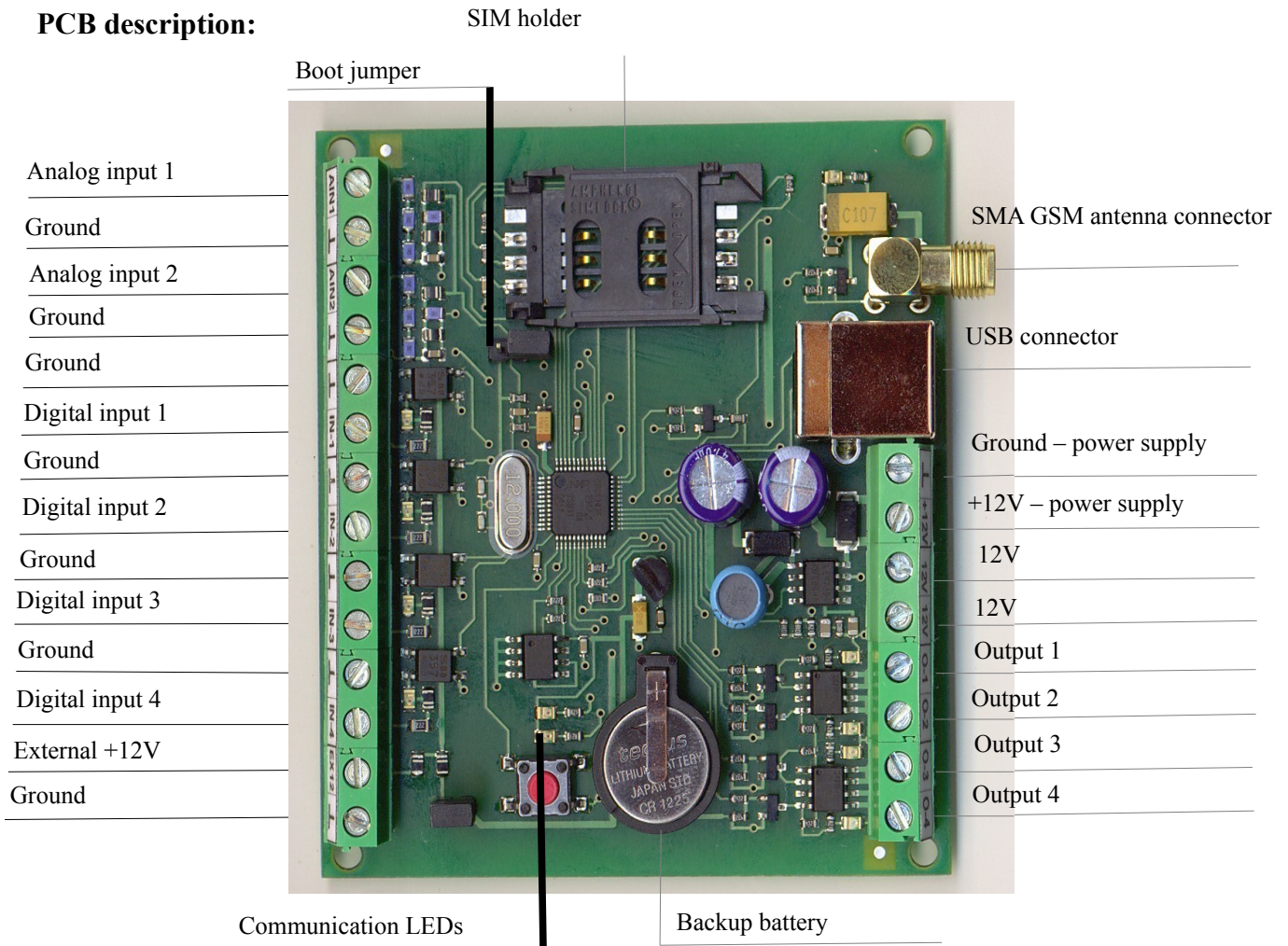
GSM remote control

SE244X

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PCB description:



Power supply is always connected to shorter connector called +12V – power supply and Ground – power supply.

Digital input 1 – 4, digital wired inputs, can be activated when contact grounded, this can be achieved by any switch, relay or an open collector transistor or device taking the input to the ground potential (each input can be programmed individually – see PC software).

Analog input 1 -2 interval 0 -17 V

Output 1 – 4 with open collector 4,5A/40V

USB : USB port connecting SE244X to PC to program

SMA : External GSM Antenna Connector

Communication LEDs: Indicate communication between SE244X and USB port.

Boot Jumper : Used to upgrade firmware via the USB port with a PC using a special service progress. This must never be connected for any reason!!!

Power Supply

It is highly recommended to use a battery backed power supply and supply the SE244X via a 2A protective fuse. This is because SE244X has a surge current draw at the very start of transmission and it will draw up to 1A for a short time. If SE244X is supplied from a battery backed power supply then the initial current surge will be covered by the battery, without a battery the voltage from the power supply could drop causing the GSM device to have communication errors. Using the correct power supply and fuse will also ensure the protective devices of the SE244X will work effectively and only operate when designed to, in case a short circuit or technical fault occurs.

SE244X Installation Instructions

General Precautions:

Switch off the power supply before making any connections including the power supply and data connections.

Do not touch any live conductors or components, as this could cause SE244X damage, especially to its communication parts.

Do not mechanically stress SE244X because this can cause damage concerning components or solder joints. SE244X power supply inputs are protected by a diode against the incorrect polarity of the power supply.

SIM card install

Install or Remove SIM card only when the power supply is turned off !

The SIM card must have no PIN ! Recommended using a SIM lump-sum card to avoid not working due to lack of credit (Prepaid SIM can be used if you keep enough credit on it).

Before putting SIM card into SE244X, you can put it in a mobile phone to erase all incoming and outgoing SMS and calls and cancel PIN.

Open the SIM card holder and put SIM card into the tray and then close and slide it back into the locked position.

Before turning ON the power supply make all the necessary connections including the power supply leads and data cables for SE244X.

Power supply input should be protected with a 2A fuse, if it is not then use an inline fuse holder with 2A fuse

SE244X Programming methods

SE244X requires some basic functions to be programmed before it can be operated. There are two ways to program these basic functions, either by SMS or PC software. SMS programming allows the same operations like PC software. PC Software allows in order that all programming was altered quickly, and a copy of all the programming can also be saved to file.

PC software install

Software is divided into clearly labeled sections, this makes the programming simple and easy to follow. When SE244X is connected to the PC you can download data from SE244X and save data to SE244X.

Put all PC software including a driver to file called SE244X. When you connect SE244X to PC USB, PC automatically installs a driver. How to do?

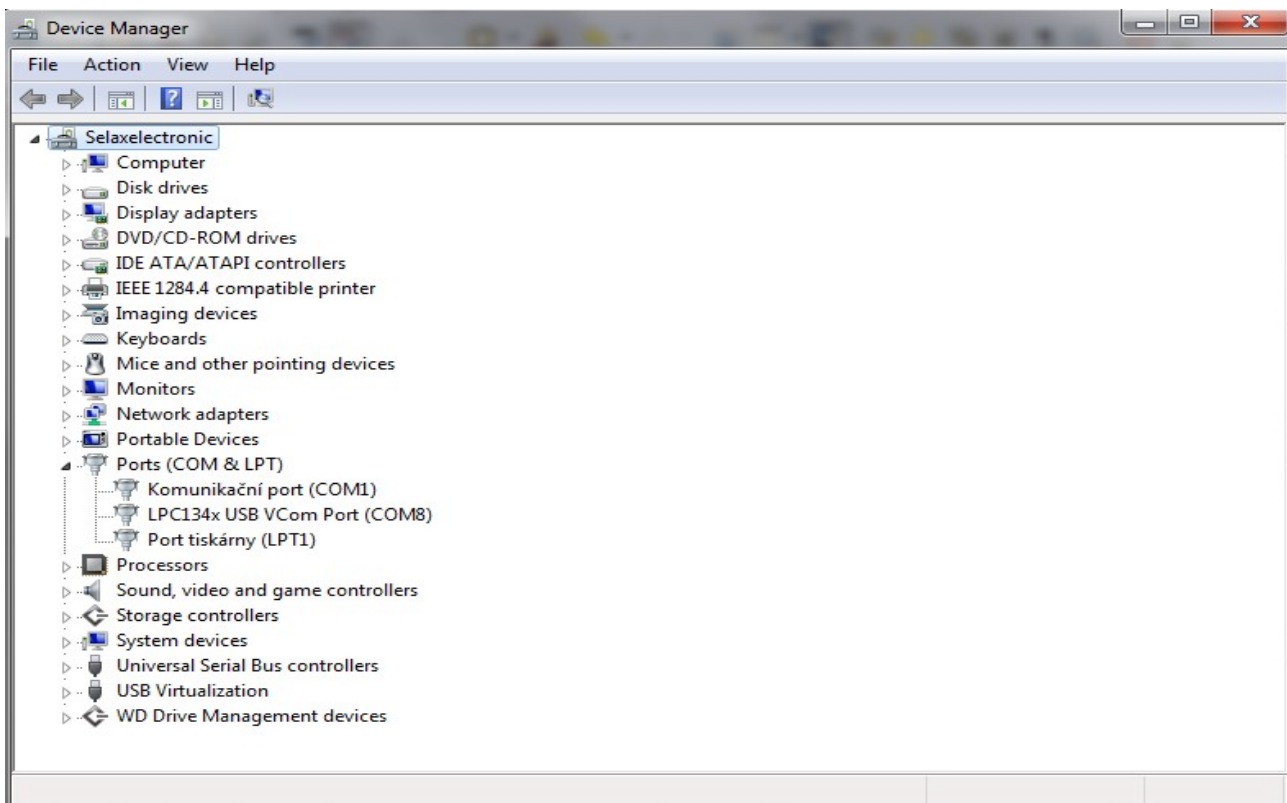
Connect SE244X to PC USB

Connect SE244X to the power supply

Install a driver lpc134x-vcom_64. It is only necessary to install this driver once.

You can control it when you click the buttons as follows:

Start, Control panel, System, Device Manager, Ports and you will see this screen:



Among ports you will see LPC134xUSB VCom Port (COMX), where X = port number, in this case = 8. In that case, install is successful.

After that, you can run PC software SEL-003EN as follows:
Run SEL-003EN.exe program

If you want to run next time, just do as follows:

Connect SE244X to PC USB
Connect SE244X to the power supply
Run SEL-003EN.exe program

If any problem with running program, switch power off, wait for about 2 – 10 seconds and switch power on again. If still troubles, you can repeat it multiple times. If problems remain, it would be necessary PC restart and try the same progress again.

Supported WIN XP and higher version, Version Win 98 not supported.

In the „message“ window (bottom left) the result of requested action will be displayed.

After running the software, SE244X will automatically search the ports for SE244X and when one is found, it will be selected. It will be displayed as „port found“ and show the port number for example „com 8“. If SE244X port is not found it will be displayed as „no port found“. See the pictures below.



Clicking on the question mark will start a new searching. It is possible to use this button even if the USB cable or power supply has been interrupted. The software has a port searching range of 1 – 256. If the software can not find the port then check the settings of the virtual ports of the PC in the „device manager“ or switch power supply off, wait for a few seconds (about 10-15) and switch power supply on again.

If data has been read from SE244X, you can then see in activate state window, if SE244X is „activated“ or „deactivated“. Activate means the system is Armed, and conversely Deactivated means system is Disarmed. You can activate/deactivate SE244X by sending SMS commands, by operating specifically programmed Inputs or by calling. If this function is enabled.

activation state
 system

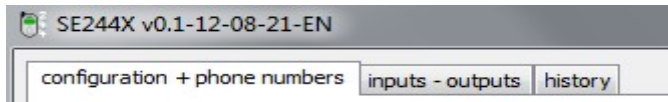
The buttons **read** and **save** are used to read or store all the settings to or from harddisk. You can also use button called **save setting** (right down corner) to save the setting. If you want to download this setting, just click on the button called **read setting** (right down corner). It will create a subdirectory automatically, or you can save or download from files anywhere, including CD, DVD, flash disk and so on. There is automatically given a suffix of „.cfg“.

PC software SEL-003EN

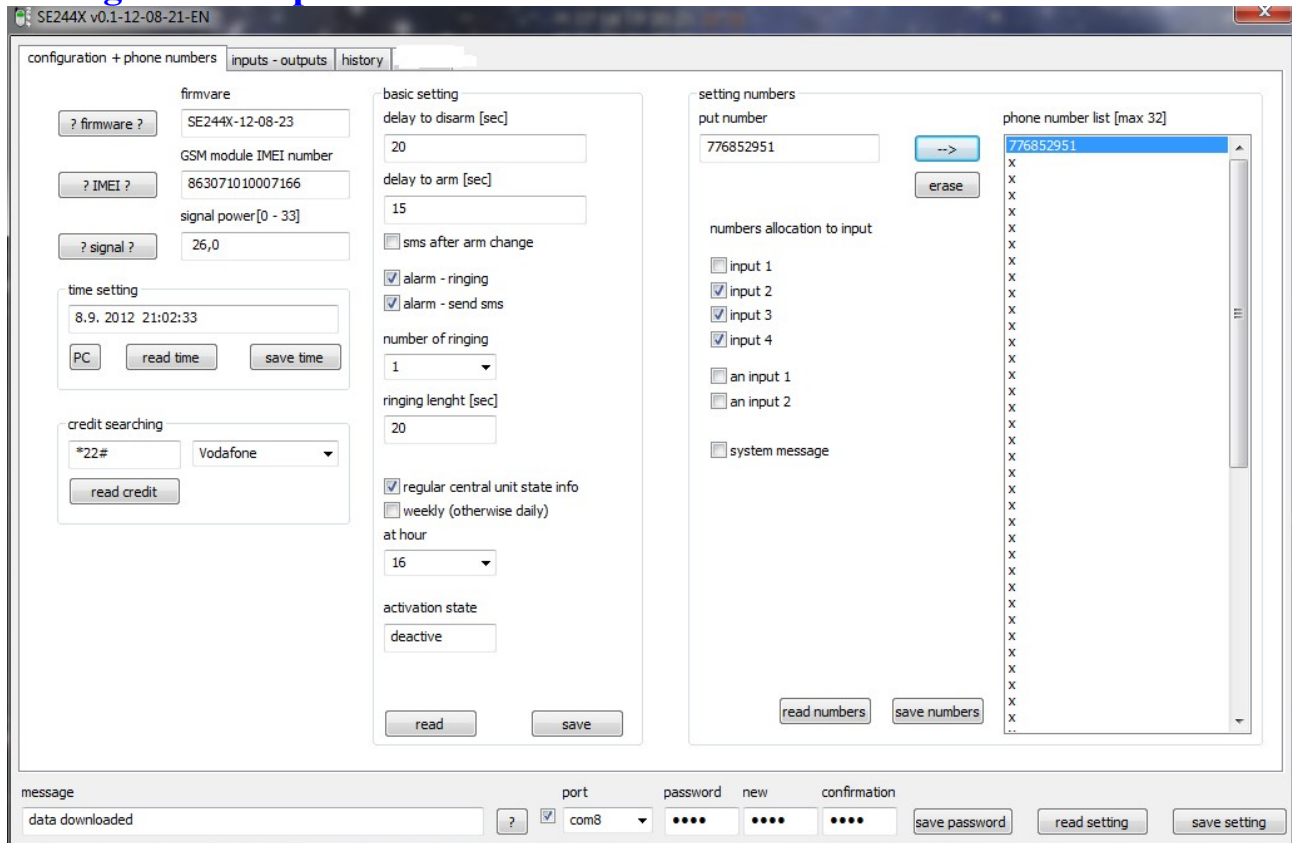
Basic screen description

The name of this software sections, you will find on the top of software. If you want to take some function, it is always necessary to check given frame. See below.

There are three basic sections called: **configuration+phone numbers**, **inputs – outputs** and **history**. Section **configuration+phone numbers** has the other subsections called **firmware**, **basic setting** and **setting numbers**.



Configuration + phone numbers



Firmware section

You can read firmware version, IMEI or signal strength, when you push appropriate button. When you click on **PC** button (time section), SE244X will download PC actual time and you can save it to SE244X clicking on **save time** button. Sometimes is necessary to repeat it. You have a possibility, too, to download a credit of your SIM card. Just click an arrow of mobile phone operators **Vodafone**. The result will be displayed on message window (left down corner).

Password

To change the password (bottom line) you need to know the existing password. Be careful not to forget the password or store it safely, without this password it is impossible to use the software. The factory password is „1234“.

If you want to change the password fill in the „new“ and „confirmation“ by the password window and then push the **save password** button. The password is four-figured, it is possible to use numbers and letters. Note: The program does not save or read the password during data transmission.

If you forget the password it can only be reset by contacting the producer !!!

Basic setting section

Delay to arm (exit delay time)

The time setting will delay SE244X from becoming active after „arming“. So that there is enough time to leave saved area. Even if any inputs is armed, no alarm will be.

Delay to disarm (access delay time)

The time setting will delay SE244X from alarm, when any inputs is armed. After time expiration, if SE244X is not disarm, will be alarm. SE244X will send SMS or call or both (according to your setting).

SMS after arm change – SE244X will send after each arm/disarm operation, so that you always know, which is SE244X status, it means, if armed/disarmed.

Alarm – ringing: when alarm, SE244X will call on the phone numbers included in phone number list.

Alarm – SMS: when alarm, SE244X will send SMS on the phone numbers included in phone number list.

When you check both, when alarm, SE244X will call and send SMS.

Number of ringing - it is possible to define a number of repetition ring

Ringling lenght – you can choose, how long calling will take (seconds)

Regular central unit state info – if you check this option, you can take some hour (below). In that case, if you took for instance 16 (hour), SE244X will send SMS in 16 hour about inputs and outputs status including information, if SE244X is armed/disarmed.

Activation state – shows, if SE244X is activated or deactivated (armed/disarmed)


If you finished setting, just click on **save** button. On the other hand, if you want to download setting of the section, just click on **read** button.

Setting numbers section

Phone number

Click on the item in the **phone number list**. The position will become highlighted in blue.

Then put the phone number into **setting numbers** item.

Move the phone number into the **phone number list** by clicking on .

It is possible to save a maximum of 32 separate phone numbers.

If you want to erase the phone number from the list, just click on it, and then click on the „**erase**“ button. SE244X will work with the phone numbers included in this number list only, all other phone numbers will be ignored. It is possible to use unauthorized phone, but only with a valid password.

Click on given phone number (it will be blue) and choose digital inputs (input 1- 4) or analog inputs (an input1 – 2). When is any of chosen inputs taken, SE244X will call or send SMS (or both) to the phone numbers.

If you finished setting, just click on **save numbers** button. On the other hand, if you want to download the phone numbers, just click on **read numbers** button.

Inputs - outputs

Device name – you can name your device as you want tp

Output name - Output name has a maximum of 15 characters or numbers, any extra characters will be erased automatically.

Connecting - it means time, when relay is connecting. Possible from 0 - 32 766 seconds. If setup to 0, the output when triggered will remain in the on-state indefinitely and can only be reset by sending a SMS command to turn it off again.

Alarm siren – alarm, you can choose, if siren sounds or not

Beep – you can choose, if relay is ON/OFF with every arming/disarming (about 500ms). When armed, relay will connect once, when disarm, relay will connect twice.

Connect ringing – SE244X connects outputs according to number of calling tones. If you let call phone twice and then hang up, SE244X will connect output 2. If you let call four time and then hang up, SE244X will connect output 4. If you let call more than four times, SE244X will be armed. If you call to SE244X again and let call more then four times, SE244X will disarmed.

Warning – SE244X will connect given output within exit or access delay time. If this time is over, outputs come back.

System disarm -

Alarm indication – output will be connected all the time after alarm. It can be cancelled by disarm. In this case SE244X calls and send SMS only once. It is a precaution to deny calling or sending SMS repeatably, when it is not necessary, for example using door magnet detector. If you want to have an alarm within all door opening, it means, that alarm will be after each door opening, it is necessary to use alarm autoreset function at digital inputs option.

Low GSM signal – if GSM signal is low or not at all, output will be connected. It is possible to connect a siren for example to warn about lost GSM signal.

Read outputs - if you want to download output setting, just click on this button.

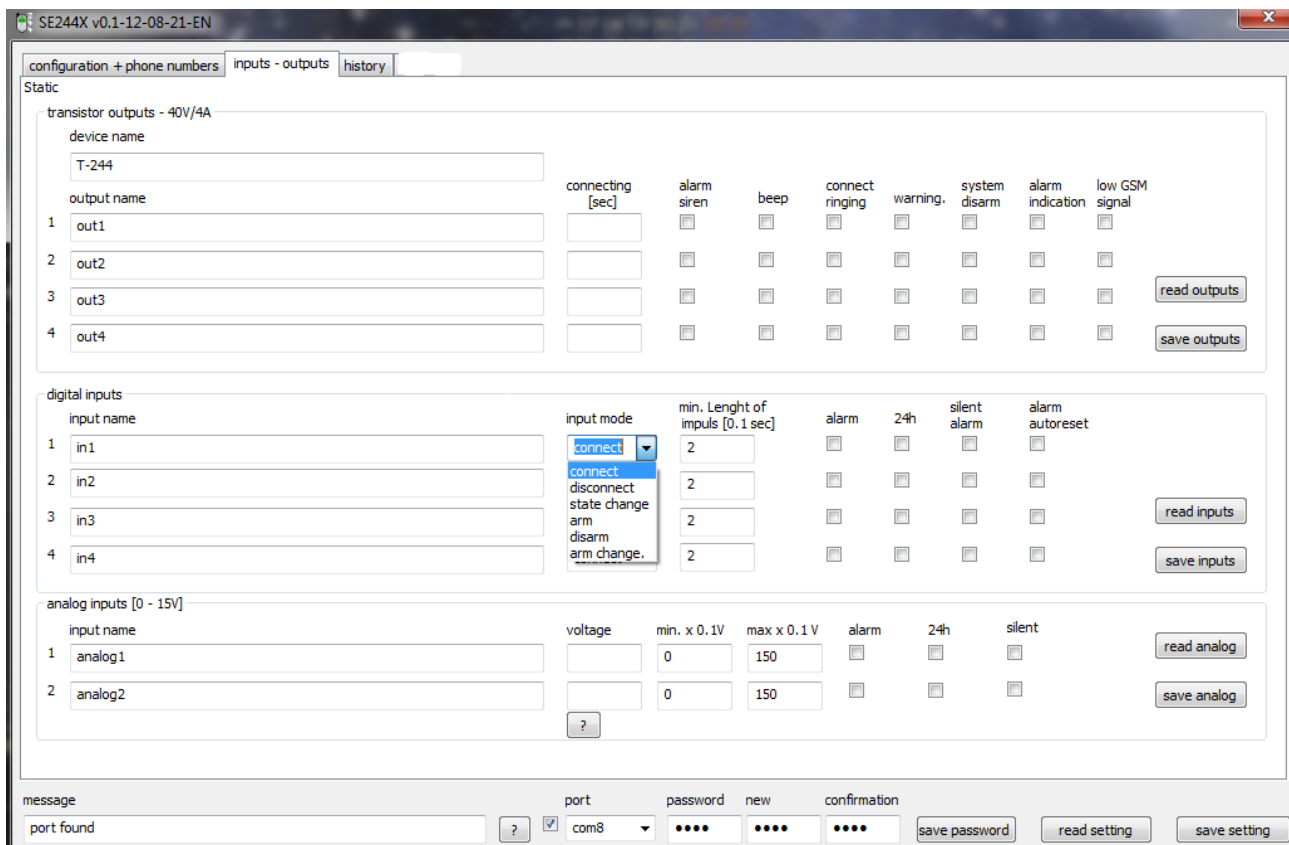
Save outputs - If you finished setting, just click on this button.

Digital inputs

Input name - input name has a maximum of 15 characters or numbers, any extra characters will be erased automatically.

Input mode – see below. Just click on an arrow.

You can select an input mode for each input separately. The inputs modes are:



Connect - when input is grounded, it will trigger.

Disconnect - when input is not grounded, it will trigger.

State change – if status is changed from Arm to Disarm or on the contrary, it will trigger.

Arm - when this input is grounded it will „activate“ SE244X.

Disarm - when this input is grounded ,it will „deactivate“ SE244X.

Arm change - this will alternate SE244X between activate/deactivate each time the input is grounded.

Min. Length of impuls - range : 0 – 65535. If input is triggered for less than this time, it will not cause an alarm.

Alarm - if alarm, SE244X calls and send SMS or siren sounds (if selected).

24h - means that the input is active 24hours and it will always cause an alarm regardless of whether SE244X is in an activated or deactivated status.

Silent alarm – the same as alarm, except siren. Siren will not sound (even if chosen).

Alarm autoreset – makes automatically SE244X autoreset. It means, each input change cause alarm, then a call and sending SMS. See **Alarm indication** with digital outputs option.

Read inputs - if you want to download output setting, just click on this button.

Save inputs - If you finished setting, just click on this button.

Analog inputs

Input name - input name has a maximum of 15 characters or numbers allowed, any extra characters will be erased automatically.

Voltage – shows analog voltage value

Min x 0,1V – min. low voltage level. If voltage is lower, SE244X alarms. It is necessary value x 10, so that if you want to setup voltage value 1,2V, it is necessary to write down 12 (12x0,1=1,2)

Max. X 0,1V - max. high voltage level. If voltage is higher, SE244X alarms. It is necessary value x 10, so that if you want to setup voltage value 11,2V, it is necessary to write down 112 (112x0,1=11,2)

Alarm – alarm, when is voltage level lower or higher

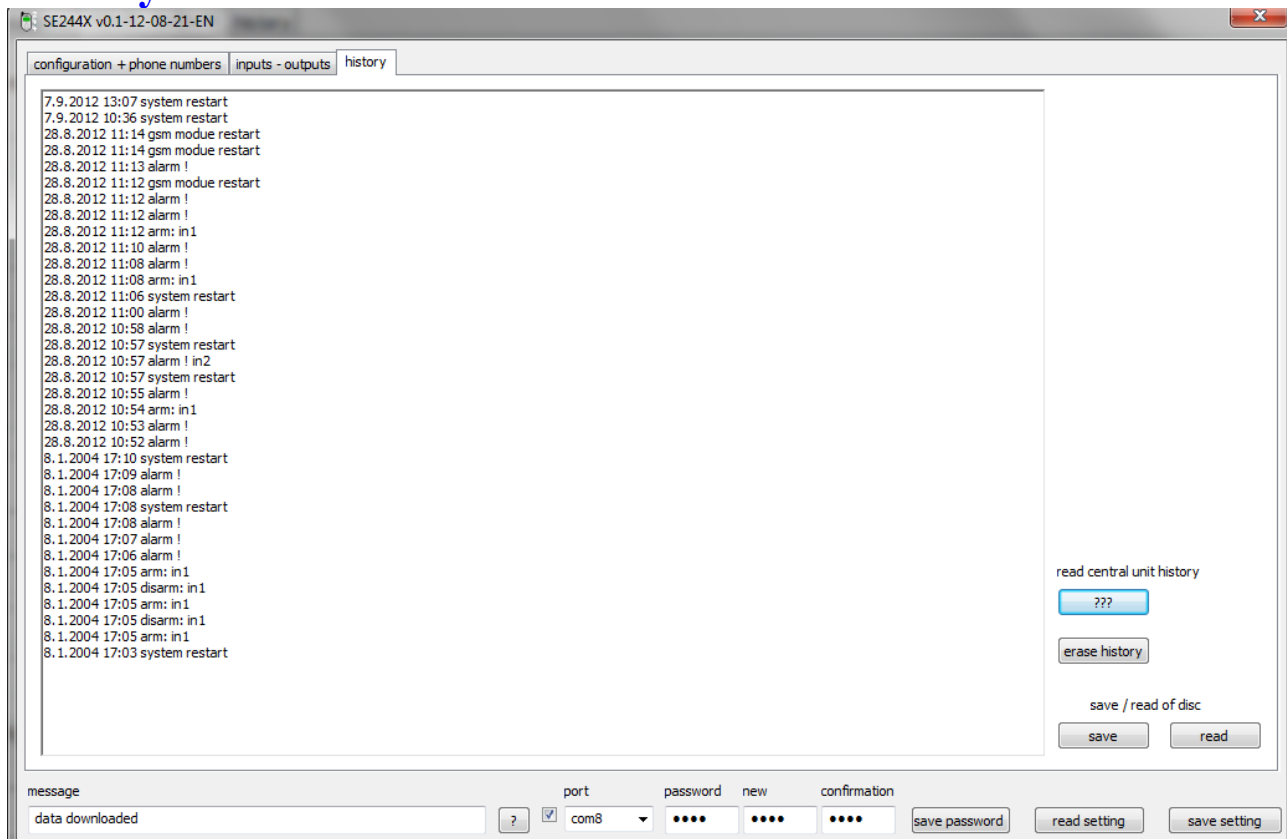
24h – means, that the input is active 24hours and it will always cause an alarm regardless of weather SE244X is in an the activated or deactivated status.

Silent - the same as alarm, except siren. Siren will not sound (even if chosen).

Read inputs - if you want to download output setting, just click on this button.

Save inputs - If you finished setting, just click on this button.

History



Just click on **read central unit history** button to display history of last 100 events. If you want to delete history, just click on **erase history** button. You can save history to any file, just clicking **save** button under save/read of disc. If needed to download history from saved file, just click on **read** button under save/read of disc.

SMS programming

SE244X checks, if phone number is included in phone number list, if so, it will accept SMS command. If not, it is necessary in order to SMS included the right password. The password must have a form as follows:

***#*nnnn** where nnnn is four digit number

Example: *#*1234

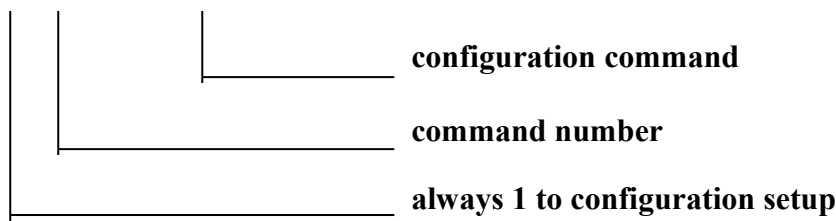
Arm / disarm sms must include as follows:

******* to arm

to disarm

SMS configuration command

****1*nn*nnnnnnn#**



Command number:

Configuration command:

1 – delay to disarm	_____	0 – 255 (sec)
2 – delay to arm	_____	0 – 255 (sec)
3 – sms after arm change	_____	0 not send 1 send
4 – alarm - ringing	_____	0 disable 1 able
5 – alarm – sms	_____	0 disable 1 able
6 – number of ringing	_____	1 – 5
7 – ringing lenght	_____	1 – 40 (sec)
8 – regular central unit info	_____	0 OFF 1 ON
9 – weekly / daily message	_____	0 – daily message 1 – weekly message
10 – at hour	_____	8 – 22 hour

Device name command:

****2*nnnnnnn#**
device name

Setting wired inputs command:

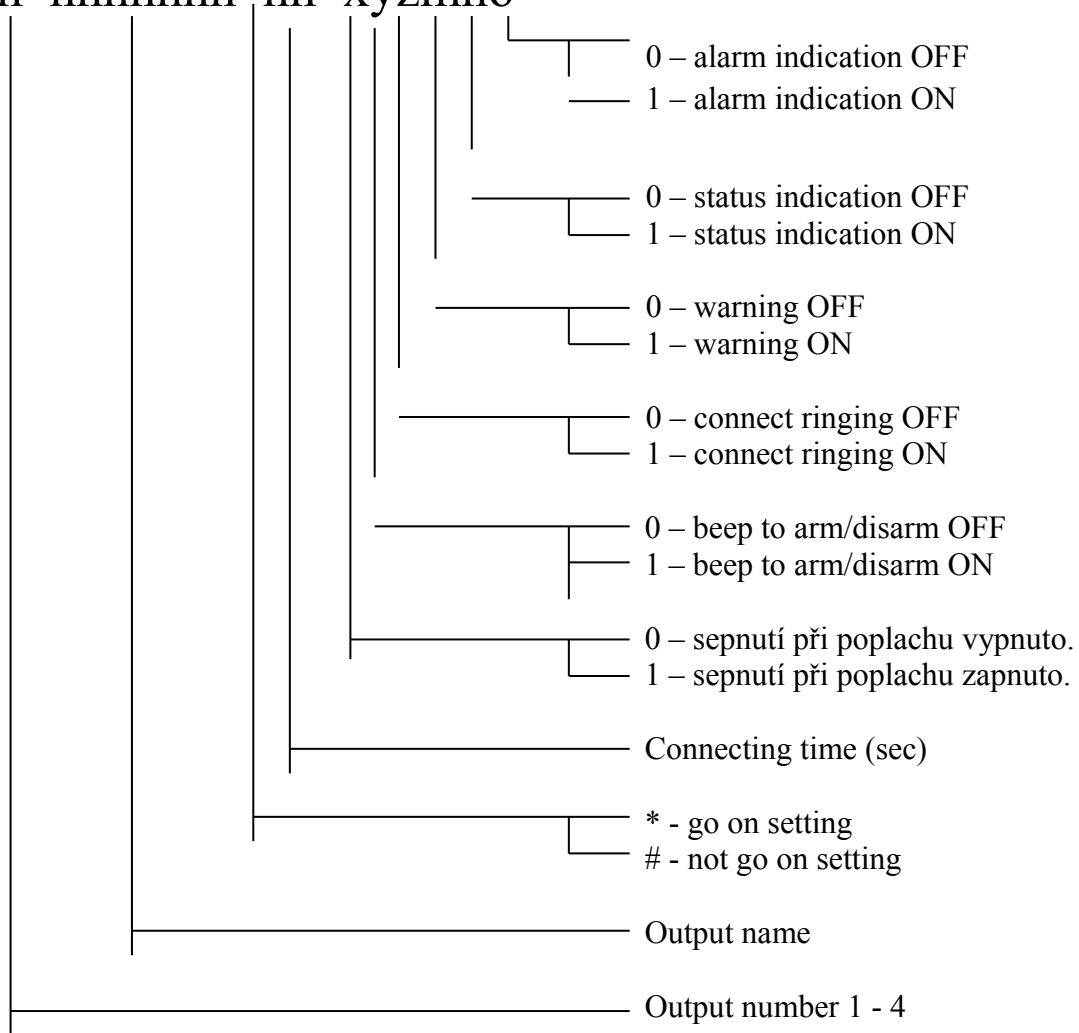
****3*n*nnn*nnn*XYZAB**

- 0 – no autoreset
- 1 – autoreset
- 0 – silent alarm OFF
- 1 – silent alarm ON
- 0 – 24 hours regime OFF
- 1 – 24 hours regime ON
- 0 – alarm OFF
- 1 – alarm ON
- 0 – active when connect
- 1 – active when disconnect
- 2 – active when state change
- 3 – arm when connect
- 4 – disarm when connect
- 5 – arm/disarm change when connect
- * - go on setting
- # - not go on setting
- min. Length of impuls (0,1sec)
- * - go on setting
- # - not go on setting
- input name
- input number 1 – 4

If necessary to change device name, SMS command will be closed #. Example: ****3*garage#**

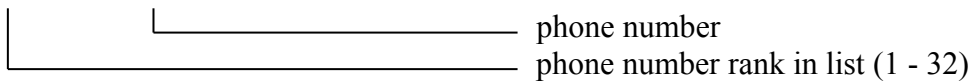
Output setting command:

****4*n*nnnnnnn*nn*xyzmno**



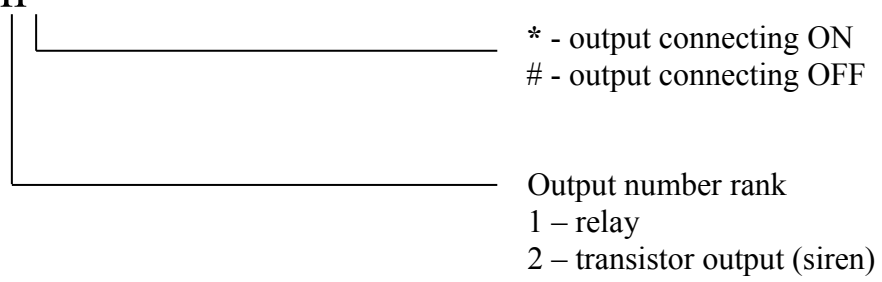
Number setting command:

****5*nn*nnnnnnn#**



Connect/disconnect output command:

****10*n***



Device history:

SMS text:

- ??** - turns device status in SMS.
- ??1** - turns last three history events in SMS.

