



# **GuardMagic VB 6-8 Programming Tool**

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## 1. INTRODUCTION

“**GuardMagic VB 6-8 programming tool**” is the special technological complete set intended for programming and change the setting of **GuardMagic VB6, GuardMagic VB7, GuardMagic VB8** modules by Personal Computer.



## 2. PACKAGES

**Complete set consist of:**

- Program “**GM VB PT**” – 1CD;
- Connection cable “**GuardMagic VB – PC (RS-232)**”;
- 220/12V AC/DC power adapter with cable (for connection to GuardMagic VB);
- User manual.

## 3. REQUIREMENTS TO PC

Minimum requirements to the PC:

- MS Windows XP, MS Windows Vista, MS Windows 7;
- Intel Pentium IV 600 or above (or AMD analogue);
- Main memory 256MB or above;
- 500 free space on a hard disk;
- Mouse and keyboard;
- Free serial port (RS-232);
- Video adapter and color monitor with the resolution not less than 800 x 600;
- CD or DVD ROM.

## 4. NECESSARY INFORMATION FOR MODULE PROGRAMMING

### 4.1. NECESSARY INFORMATION FROM YOUR LOCAL GSM PROVIDER

Before carrying out of the module programming, it is necessary to get information from your GSM operator:

**parameters of GPRS at yours GSM the provider**, namely:

- **access point** name/APN - APN server of yours GSM provider;
- **name (Login)\*** – user name for access to a server of yours GSM the provider;
- **password\*** – password for access to the server of yours GSM the provider;

\* - often GSM provider has not (and don't give) Name and Password to access to its GPRS server.

*This information will be entering in module during programming procedure.*

### 4.2. NECESSARY INFORMATION FROM YOUR MONITORING STATION

For the module connection to monitoring station you have to get data from monitoring station (monitoring software), namely:

- **IP address** of monitoring station (server IP address);
- **port number** of monitoring station server.

If monitoring station (monitoring software) has an additional module name in system you have to get this information.

You also have to inform monitoring station about type of module and module factory number.

*This information will be entering in module during programming procedure.*

### 4.3. NECESSARY INFORMATION TO YOUR MONITORING STATION

For connection module to monitoring station (monitoring software) also will be needed to enter your module (information about your module) in to monitoring software.

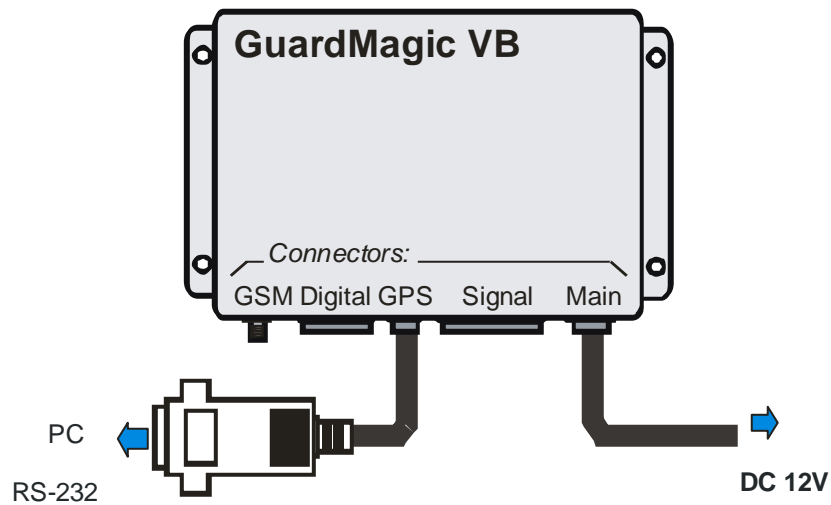
This base information is:

- type of module (code of module type),
- factory number of your module.

### 4.4. ADDITIONAL NAME

**GuardMagic VB** modules also support so named “additional module name” in system. If the monitoring station (or monitoring software) supports this function, “additional module name” can be programming in module and necessary has be taken to monitoring station (entering in monitoring software).

## 5. MODULE CONNECTION



### Connection order:

- Connect module **GuardMagic VB** to serial port of personal computer by the special connection cable (Connection cable PC-GuardMagic VB);
- Connect the cable of AC/DC power adapter (from complete set) to 4 pin connector on GuardMagic VB;
- Connect power adapter to AC 220 V.

## 6. START THE PROGRAM AND OVERVIEW OF BASIC FORM

### 6.1. START THE PROGRAM

Copy program "GM VB PT" (VB-programmer.exe) from CD to hard disk of yours PC.  
Start the program "GM VB PT" (VB-programmer.exe).  
After start the program on the screen will open the basic form, shown on figure.

ProgrammingTool for GuardMagic VB6 - VB8 - 22.12.2011

Unit Data

Unit Type:  Factory Number:  Firmware:  BootLoader:

Base Settings External Devices Operation Parameters Communication Parameters

GPS communication speed:

SMS Confirmation Password:

Additional Name:

GuardMagic VB programmer ("GM VB PT") is the special technological program intended for user programming the setting of GuardMagic VB6, GuardMagic VB7, GuardMagic VB8 modules by Personal Computer.

ProgrammingTool for GuardMagic VB6 - VB8  
GuardMagic, Riga, Latvia (EU)  
[www.guardmagic.com](http://www.guardmagic.com), [www.guardmagic.lv](http://www.guardmagic.lv)

Get Log COM1 Read Data Save Data

### 6.2. SERVICE LINE

Read Only.

ProgrammingTool for GuardMagic VB6 - VB8 - 22.12.2011

Unit Data

Unit Type:  Factory Number:  Firmware:  BootLoader:

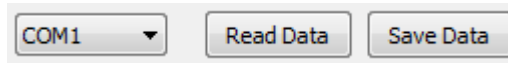
Service line located on bottom of the form and is intended to give main information about connected GuardMagic VB module:

- "Unit Type"\* – type of module;
- "Factory Number"\* – factory number of module;
- "Firmware" – version of module internal firmware;
- "BootLoader" – version of module BootLoader

\* - content of this field will be needed for your monitoring station (monitoring software).

### 6.3. CONTROLS ELEMENTS

Controls elements located on below of the form and are intended for operations “Read Configuration” and “Write Configuration” in module.



Name	Description
Serial Port (com1)	Select the operation serial port (on PC)
"Read Data"	Button; Read data (configuration) of VB module
"Save Data"	Button; Save configuration and setting

### 6.4. OPERATION BOOKMARKS

There are four main working bookmarks for module programming:

- Base Setting;
- External Devices;
- Operation Parameters;
- Communication Parameters.

## 7. OPERATION BOOKMARKS DESCRIPTION

### 7.1. BASE SETTING

Bookmark is intended for main module setting.

Fields		
Name	Description	Note
Additional Name	GuardMagic VB unit additional name in system. Using like additional password.	Enter / Change Not necessarily, depend of system or monitoring software



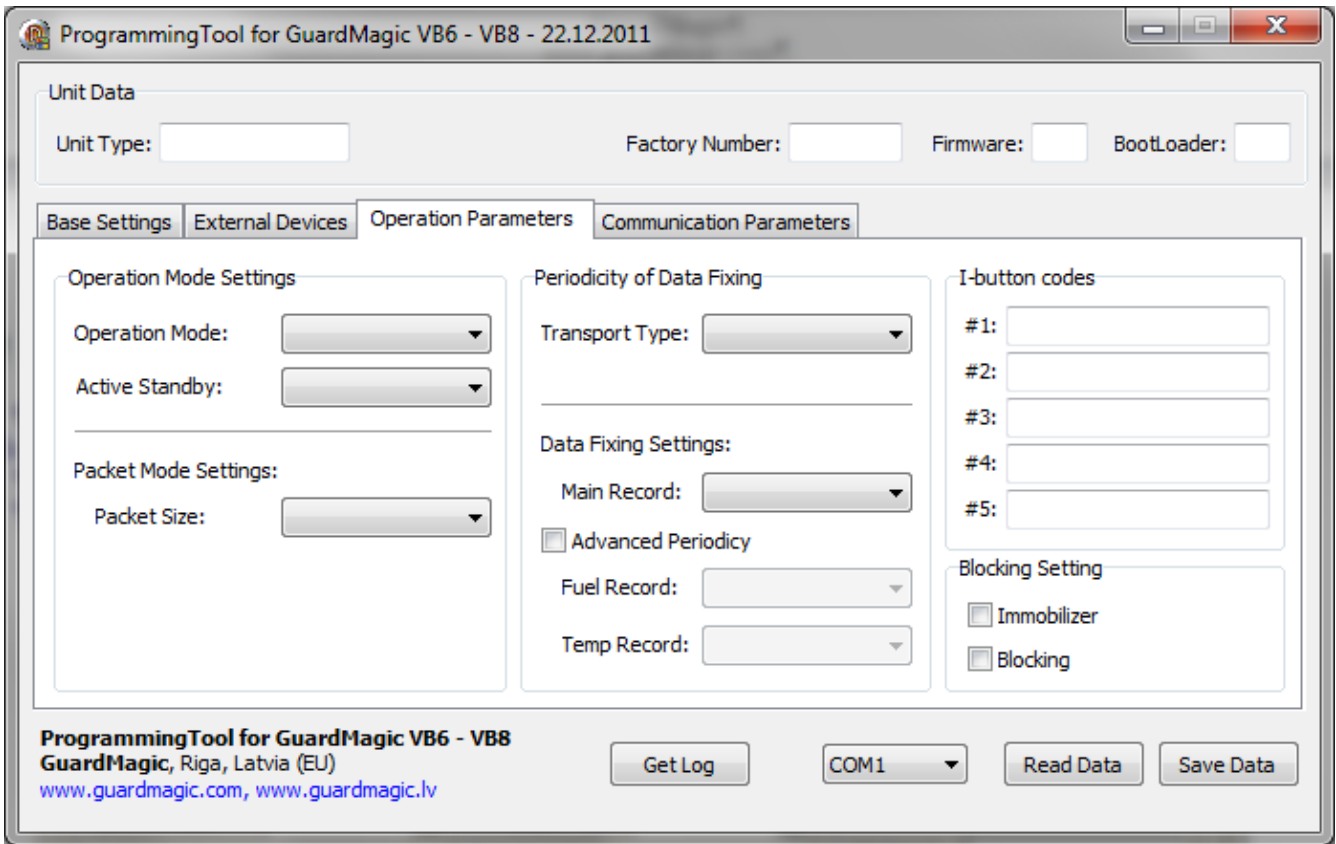
## 7.2. EXTERNAL DEVICES

Bookmark is intended for configuration external sensors: fuel and temperature (activate deactivate).

Fields		
Name	Description	Note
"Group 1 Activation"	Fuel sensors group 1 activation	
"Group 2 Activation"	Fuel sensors group 2 activation	
Main Tank 1..3	Activation of Man Tank 1..3	
Cargo Tank 1..11	Activation of Cargo Tank 1..11	
Temperature Sensor Activation	Activation function of "Temperature Measurement".	
Sensor Activation Sensor #1..#7	Activation temperature sensors and entering address of temperature sensors on "Temperature Bus"	
"Get ID Code"	Get ID Code of connected sensor	
"Main Service Record 2"	Activation of Main Service Record 2	
"FST-code Record"	Activation of FST-code Record	
"Maximum RPM Pulses"	Set the value of Maximum RPM Pulses	7 680 or 61 440 RPM

### 7.3. OPERATION PARAMETERS

Bookmark is intended for programming module operation mode and operation parameters.



Fields		
Name	Description	Note
"Operation Mode"	Select type of unit working mode	"Real Time", "Packet", "Logger" (for future models)
"Active Standby"	Activation of Active Standby function	15 min; 1 hour; 4 hour
"Packet Size"	The size of Packet transmitting size on "Packet Mode"	
"Transport Type"	Select one type of transport	Vehicle; Special machinery
"Main Record"	Select Periodicity of "Main Record" fixing	
Advanced Periodicity	Advanced periodicity function activation for setting individual time for "Fuel Record" and "Temp Record"	
"Fuel Record"	Select Periodicity of "Fuel Record" fixing	
"Temperature Record"	Select Periodicity of "Temperature Record" fixing	
"i-Buttons codes"	Field for entering iButton code	Driver ID code (iButton Key)
Switch "Immobilizer"	Activate/Deactivate immobilizing function	
Switch "Blocking"		

## 7.4. ABOUT iBUTTON KEY

The field on "OPERATION PARAMETERS" for enter driver ID code, that will have the access to drive the vehicle.

Five fields for entering till 5 ID keys (5 ID driver numbers);

Drivers code (i-button code), which will have access rights (management) of transport. Code information is entered in field "iButton code" from the i-button:



Main i-Button code will be (like from photo): **00000F2E3013**

Additional code:

family code : **81**

control code: **01**

It will be necessary to enter: "family code" + "main code" + "control code";

Like: **8100000F2E301301**

## 7.5. COMMUNICATION PARAMETERS

Bookmark is intended for programming module communication parameters.

Fields		
Name	Description	Note
APN	<b>access point name</b> - APN server of yours GSM provider;	Given by GSM provider; Necessary field
GPRS User Name *	user name for access to a server of yours GSM the provider	Given by GSM provider Necessary
GPRS Password*	password for access to the server of yours GSM the provider;	Given by GSM provider
Host IP1	IP address of Main monitoring station (server IP address);	Given by monitoring station (monitoring software); Necessary field
Host IP1 port	port number of Main monitoring station server.	Given by monitoring station (monitoring software); Necessary field
Host IP2	IP address of Reserve monitoring station (server IP address);	Given by monitoring station (monitoring software)
Host IP2 port	port number of Reserve monitoring station server.	Given by monitoring station (monitoring software)

\* - often GSM provider has not (and don't give) Name and Password to access to its GPRS server.

## 8. STARTING OPERATION WITH PROGRAM

After start the program it is necessary to choose COM PORT and to press button "Read Data".

After pressing the button "**Read Data**" will open "Base Setting" and will appear the information like this:

The screenshot shows a software window titled "ProgrammingTool for GuardMagic VB6 - VB8 - 22.12.2011". The window is divided into several sections:

- Unit Data:** Unit Type: GuardMagic VB8, Factory Number: 1234567, Firmware: 2.0, BootLoader: 1.2
- Base Settings:** GPS communication speed: 4800 bps, SMS Confirmation Password: 1234, Additional Name: GM\_VB\_unit
- External Devices:** (Empty)
- Operation Parameters:** (Empty)
- Communication Parameters:** (Empty)

At the bottom of the window, there is a footer with the text: "ProgrammingTool for GuardMagic VB6 - VB8", "GuardMagic, Riga, Latvia (EU)", and "www.guardmagic.com, www.guardmagic.lv". To the right of the footer are four buttons: "Get Log", "COM5" (with a dropdown arrow), "Read Data" (highlighted in blue), and "Save Data".

In the "Service Line" will be information about **GuardMagic VB** module.

Note:

1. At the first reading the configuration of **GuardMagic VB** in some fields can appear the "ZERO" or "FFFF" information
2. Record interval can be mark like "Read Only".  
It will be necessary to change all "record intervals" to the "correct" record interval.  
The correct Record Intervals select from the list of record interval.

## 9. PROGRAMMING PROCEDURE

The module programming procedure is consistently completing the required fields on the persistence and saving entered data.

For the data saving it is necessary to push button “Save Data”.

After saving data for the checking will be needed to read new module configuration (push button “Read Data”).

Samples of programming data are shown below.

### 9.1. SAMPLE OF “BASE SETTING” BOOKMARK

ProgrammingTool for GuardMagic VB6 - VB8 - 22.12.2011

Unit Data

Unit Type:  Factory Number:  Firmware:  BootLoader:

Base Settings | External Devices | Operation Parameters | Communication Parameters

GPS communication speed:

SMS Confirmation Password:

Additional Name:

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Get Log | COM5 | Read Data | Save Data

## 9.2. SAMPLE OF “EXTERNAL DEVICE” BOOKMARK

ProgrammingTool for GuardMagic VB6 - VB8 - 22.12.2011

Unit Data  
Unit Type: GuardMagic VB8      Factory Number: 1234567      Firmware: 2.0      BootLoader: 1.2

Base Settings   External Devices   Operation Parameters   Communication Parameters

Fuel Sensors Group 1  
 Group 1 Activation  
 Main Tank 1  
 Main Tank 2  
 Main Tank 3  
 Cargo Tank 1  
 Cargo Tank 2  
 Cargo Tank 3  
 Cargo Tank 4

Fuel Sensors Group 2  
 Group 2 Activation  
 Cargo Tank 5  
 Cargo Tank 6  
 Cargo Tank 7  
 Cargo Tank 8  
 Cargo Tank 9  
 Cargo Tank 10  
 Cargo Tank 11

Temperature Sensors  
 Sensors Activation    Get ID Code  
 #1 FFFFFFFFFFFFFFFF  
 #2 FFFFFFFFFFFFFFFF  
 #3 FFFFFFFFFFFFFFFF  
 #4 FFFFFFFFFFFFFFFF  
 #5 FFFFFFFFFFFFFFFF  
 #6 FFFFFFFFFFFFFFFF  
 #7 FFFFFFFFFFFFFFFF

Activate records  
 Main Service Record 2  
 FST-code Record

Maximim RPM Pulses  
 7 680  
 61 440

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Get Log    COM5    Read Data    Save Data

## 9.3. SAMPLE OF “OPERATION PARAMETERS” BOOKMARK

ProgrammingTool for GuardMagic VB6 - VB8 - 22.12.2011

Unit Data  
Unit Type: GuardMagic VB8      Factory Number: 1234567      Firmware: 2.0      BootLoader: 1.2

Base Settings   External Devices   Operation Parameters   Communication Parameters

Operation Mode Settings  
Operation Mode: Packet  
Active Standby: Off

Packet Mode Settings  
Packet Size: 4

Periodicity of Data Fixing  
Transport Type: Special Machinery

Data Fixing Settings:  
Main Record: 10 sec  
 Advanced Periodicity  
Fuel Record: 1 min  
Temp Record: 1 min

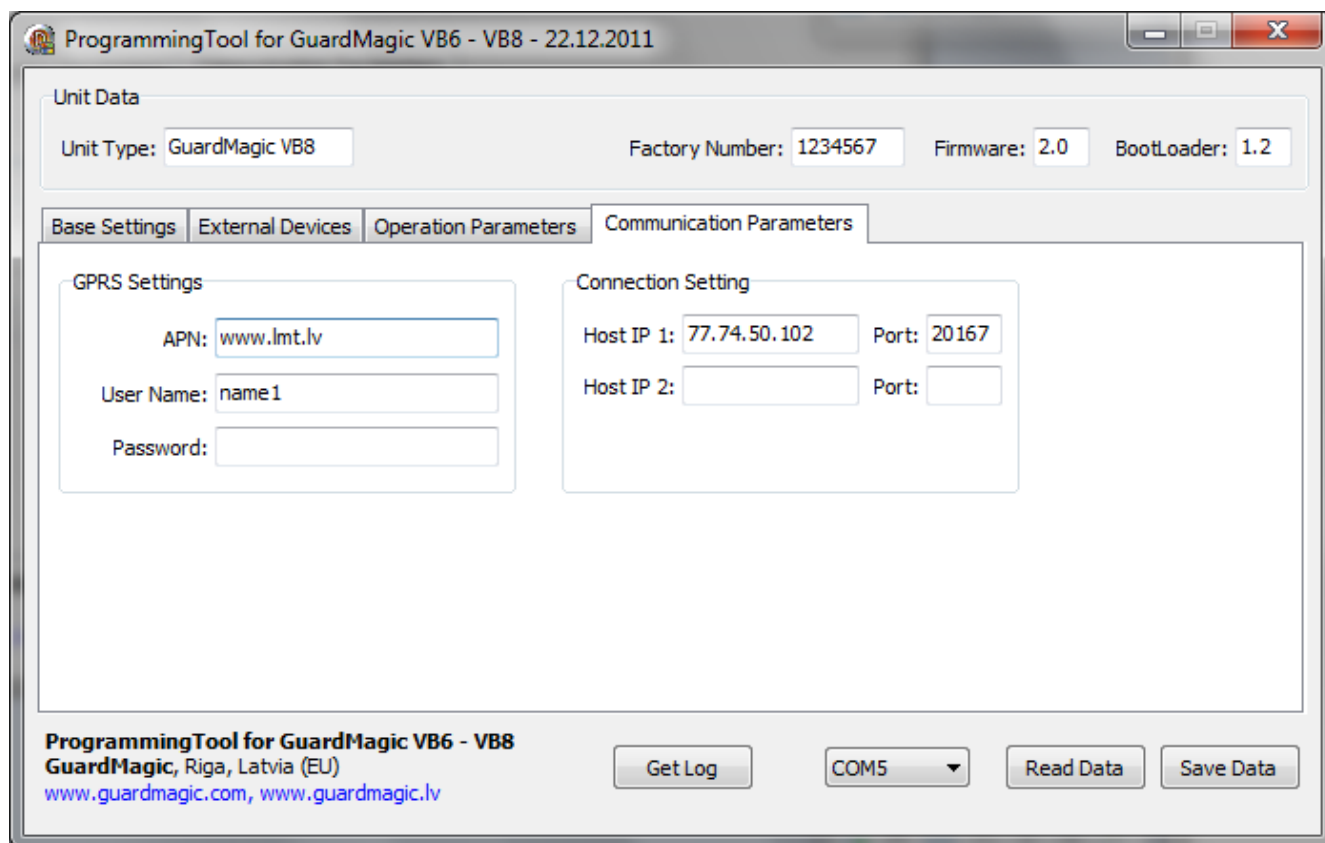
I-button codes  
#1: FFFFFFFFFFFFFFFF  
#2: FFFFFFFFFFFFFFFF  
#3: FFFFFFFFFFFFFFFF  
#4: FFFFFFFFFFFFFFFF  
#5: FFFFFFFFFFFFFFFF

Blocking Setting  
 Immobilizer  
 Blocking

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Get Log    COM5    Read Data    Save Data

## 9.4. SAMPLE OF “COMMUNICATION PARAMETERS” BOOKMARK



## 9.5. ADDITIONAL NOTES

For exit from the program it is necessary to press the button "  "



## 10. WIRING DIAGRAMS OF GuardMagic VB

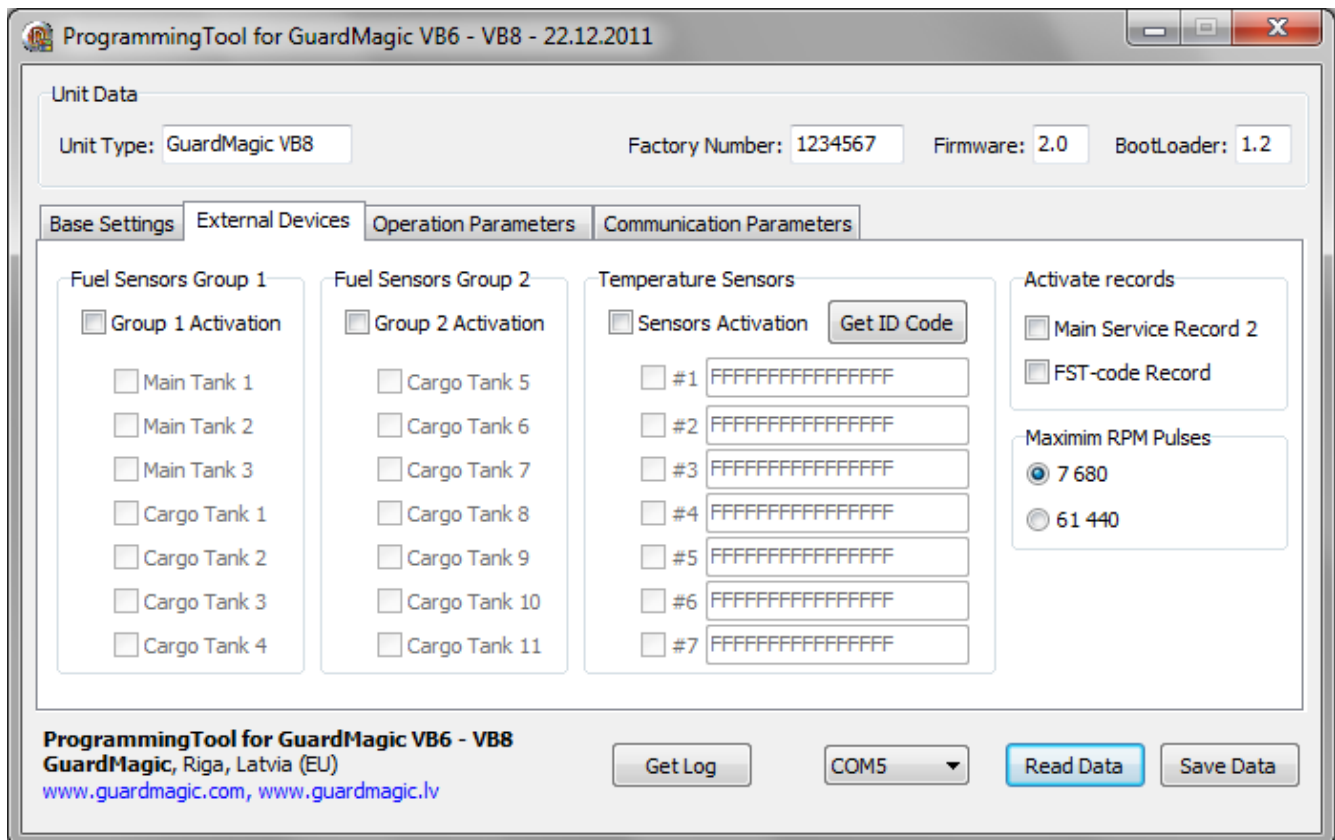
### Power - main connector (8 PIN)

pin	name	description
5	+12 V	Power + 12 V
1	GND	Ground

### RS-232 connector (4 PIN)

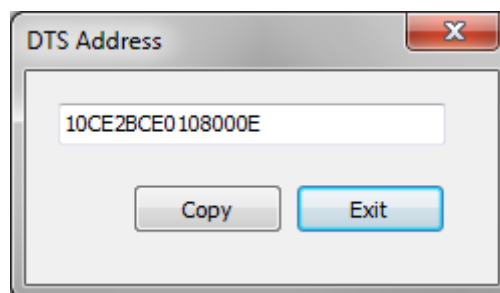
pin	name	description
1	GND	Ground
3	RXD	Data RX
4	TXD	Data TX

## 11. APPENDIX 1 - Digital thermometer ID number reading



In order to read the address of the connected sensor it is necessary to:

1. Connect one sensor to the 1-wire bus (during the address reading procedure only ONE sensor could be connected).
2. Press the button "Get Address" on the "Programming Tool for GuardMagic VB" software on the page "External Devices".
3. On the shown window you can see the address of the temperature sensor.  
To copy the address from the form to the clipboard, press the button "Copy".  
To close the window "DTS Address", press the button "Exit".



4. If it is necessary to get the address of another sensor, disconnect the connected sensor, connect another sensor (the one from which you want to get the address), and follow the steps from the beginning.
5. To save the addresses of the connected sensors, it is necessary to enter the received addresses into the group box "Sensor Activation", and save the entered data.