



CQ64-GSMrf system
Quick start

January 2013

CU-GSM and WinSC software

1. Install WinSC software on the computer.
2. Install Guardant dongle drivers from the **Start\Programs\WSC_XX\Guardant** and connect the dongle to the computer. If drivers installed correctly, the dongle will turn on green LED.
Attention! If you are using **WinSC_demo**, than you have to skip this point, for it doesn't need Guardant dongle.
3. Start the program. You will be asked to select a language. You will be given a choice between English and a language set in the Windows Regional settings.
4. After selecting a language, program will ask for login and password. By default those are the following: Login - **sys**, password - **sys**.
5. It is recommended to change the system password as soon as possible. To do so, go to **Utilities-Change system password**.
Attention! System password is used to encrypt the database and must not be lost.
6. Install COM_USB drivers from the **Start\Programs\WSC_XX\USB_COM**
7. Insert activated SIM card into the CU-GSM as shown on the label. PIN-code request must be activated and PIN must be 0000.
8. Connect GSM antenna to the CU-GSM, than power it up and connect to the computer. CU-GSM should be found by the system and recognized as **USB serial port**.

COM port number must not exceed 10.

9. Open the receiver settings window. **Service-Receiver settings**.

In the "Receiver type" field select CU-GSM and in the "Source" field COM port that is CU-GSM.

You can learn port number by right clicking "My computer" and selecting "Properties" option. Than select "Hardware" tab and press "Device manager". Find "Ports" in the list, and see which port corresponds **USB serial port**.

10. Press "Port settings" button and set port options the following way:

Baud rate	9600
Data bits	8
Parity	None
Stop bits	1
Flow control	None
Time of heartbeat test	01:30

- If you are going to use CQ-64GSMrf in the GPRS mode, then you have to create another channel. Press  button and select channel 2. Set "Channel ID" parameter as 1 and "Receiver type" as "SIA_IP". After configuration your Receiver settings windows should look like this:



Press **OK** to save changes and close window.

Note: If you need to change TCP-port that is used for connection with CQ-64GSMrf you have to open **SIA_IP.ini** file in the main program folder (using Notepad) and change the value of the "**Port=**" parameter. By default – 923.

Note: in Demo version only one Receiving Channel is available.

- Program should receive 2 event messages:

[Initialization Ok](#)

and

[GSM signal Ok](#)

If these messages are received than CU-GSM are connected to the software and functioning normally.

If not - unplug power supply and USB-cable from the CU-GSM, connect them again and reinitialize COM port by opening "Receiver setting window" and pressing OK.

- Press  **Edit** button to open object editor window.

Press  button to create new object. Specify object name and description.

Enter the following parameters in the "Phone" section: Account - **CQ-64GSMrf** account (by default - 1234), Line - GSM, Channel - 1, Phone - phone number of the SIM-card inserted into **CQ-64GSMrf** (without international code).

- Select "TLF_Events" tab. Right click on the empty field and select "Load from card" option. Select CQ-64GSMrf.txt file and press OK.

If no file is found, you can download it from the <http://f.cortex.lv/Downloads/TLFCards/> File must be placed into the "TLF" folder.

Save the changes using  icon and close the window.

- The object is created and ready to receive information.

- To send a message to the object (device), select it in the object list and right-click it.

Select "Set msg" option in the menu. Type message text in the opened window and press **Enter**.

After the message is sent successfully, "SMS sent OK" message will appear.

CQ-64GSMrf

Powering on

1. Open the case, remove label from the SIM-holder, **open it**, insert SIM-card and place label back on the SIM-holder. SIM card must be activated, PIN code request must be on and PIN code should be 0000.
2. Connect the power cable to jack.

Warning! Do not connect the charger if the power cable is not connected to the jack.

3. Close the case. Be careful not to damage the cables and antenna.
4. Press the right button of the device to turn it on. Wait until **GSM** LED starts flashing green once every 3 seconds, and **MODE** LED starts flashing once every 6 seconds. Color of the **MODE** LED will indicate battery status. Green - battery full, orange - medium charge, red - battery low.

Message sending and decoding

Every SMS message, sent to the device is case sensitive and must be entered without spaces..

The messages received from the device are displayed differently, depending on the device that received a message.

1. If the message is received on mobile phone than it will look the following way:

07,1234,80100000*0A

07	1234	80100000	*0A
Event type	Account	Event code	Checksum

Event type can take two values, 06 - alarm event, 07 - restore event. Neutral events can be of each type (depends on the event). For full event list see table at the end.

Account - device account.

Event code - event code is a 8-digit code that consists of three parts and looks like **CCCPP0TT**. **CCC** - event code, **PP** - number of active guard (00 if none programmed), **0TT** - RF-ID tag or other parameter number (depends on the event).

CS - Checksum. Not functional if received on mobile phone.

2. If the message is received in the WinSC software and is not described in the event editor, it will look the following way:

Partitions=00 EventCode=R801000

Guard number

Event code

General parameter programming

1. First you have to program the installer's phone number. This number is used to configure all the device parameters and does not receive any event messages from the device.

To program the number, send **90<phone number>** to the device. <phone number> - installers phone number. As an answer you should receive **CONFIRM ID** message and **OK** message. After receiving this, send the device it's account number. Default account value is 1234. After the number is successfully programmed you will receive OK message.

Example: Sent: **90+37121234567**

Received: **CONFIRM ID** and **OK**

Sent: **1234**

Received: **OK**

Attention! All further programming must be made from the installer's phone.

2. Than you have to program the CU-GSM phone number to receive SMS messages from the device.

To do so send **91<phone number>** <phone number> - number of SIM card, inserted into CU-GSM.

Example: **91+37121234567**

3. If needed program the second phone number.

To do so send **92<phone number>** <phone number> - desired phone number.

Example: **92+37121234567**

4. Program device account. Account is needed to identify the device in the WinSC software. Each device must have it's own unique account. By default each device account is 1234.

To do so send **95<account>** <account> - new account.

Example: **954321**

Route programming

1. Decide on how many routes you will use this device, and program it's amount. Only one route is activated by default, and only one route may be activated at a time.

If you are going to use only one route, you may skip this point.

To change number of routes send **93#<number of routes>** <number of routes> - one-digit code that defines number of routes: 1 - 1 route, 2 - 2 routes, 3 - 4 routes.

Example: **93#2**

2. Decide in which mode the first route will function. The first mode is activated by default.

If you are going to use the first operation mode, you may skip this point.

To change the operation mode for the first route send **93**<mode number>*** *<mode number>* - number of the desired operation mode. From 1 to 4. You can find detailed information, describing each mode, in the **CQ-64GSMrf** user manual "Device working modes" paragraph.

Example: **93*3**

3. Decide in which mode the second route will function. The first mode is activated by default.

If you are going to use only one route, or you need to use the first operation mode for this route, you may skip this point.

To change the operation mode for the second route, you have to activate it first.

To do so, send **93R2** This will activate the second route.

Then send **93**<mode number>*** *<mode number>* - number of the desired operation mode. From 1 to 4.

4. Decide in which mode the third route will function. The first mode is activated by default.

If you are going to use less than 3 routes, or you need to use the first operation mode for this route, you may skip this point.

To change the operation mode for the third route, you have to activate it first.

To do so, send **93R3** This will activate the third route.

Then send **93**<mode number>*** *<mode number>* - number of the desired operation mode. From 1 to 4.

5. Decide in which mode the fourth route will function. The first mode is activated by default.

If you are going to use less than 4 routes, or you need to use the first operation mode for this route, you may skip this point.

To change the operation mode for the third route, you have to activate it first.

To do so, send **93R4** This will activate the fourth route.

Then send **93**<mode number>*** *<mode number>* - number of the desired operation mode. From 1 to 4.

Tag programming

You have to program RF-ID tags for each route. Depending on the overall amount of routes, each route can have different number of tags programmed: 1 route - 64 tags, 2 routes - 32 tags each, 4 routes - 16 tags each. To program the tags you will have to do the following:

1. Activate the desired route by sending **93R<route number>** *<route number>* - number of the desired route. From 1 to 4

2. Send **99RP**

3. Wait for the **MODE** LED to turn orange.

4. Press any of the two buttons and in 5 seconds time move the first tag to the device to program it.

If the tag is programmed successfully, you will hear triple sound signal, otherwise - short sound signal.

5. Do so for each tag, reading them in the order they will be placed on the route.
6. When all the tags are programmed wait for the MODE LED to start blinking again.
7. Complete this operation for every route.

Route configuration

Depending on the selected operation mode you will have to make additional configuration.

If you have chosen the second or the third mode types, you will have to program interval between the points. By default all intervals are 1 hour.

First you have to activate the route that is operating in the second or third mode. To do so, send **93R<route number> <mode number>** - number of the desired route. From 1 to 4

Then send **99Txx.hhmm,yy.hhmm** xx and yy tag numbers, hhmm – time interval in hours and minutes from the previous key.

If you have chosen the fourth mode, you will have to fully configure it, for no data is programmed by default.

First you have to activate the route that is operating in the second or third mode. To do so, send **93R<route number> <route number>** - number of the desired route. From 1 to 4

Then send **98Taaaa,bbbb,cccc,d** aaaa – time, when to start the first patrolling, bbbb – patrolling duration, cccc – time between patrolling starts, d – number of patrolling (if 0 – not counted).

Attention: Patrolling duration must be at least 10 minutes shorter than time between patrolling starts.

GPRS configuration

If you want the device to send information via GPRS, you will have to make additional configurations. GPRS mode is deactivated by default.

1. Set the IP address of the computer with installed WinSC software.

Command is **89I<IP-address>**

Example: **89I213.21.213.21**

2. Set the TCP-port, that will be used on the computer with installed WinSC software. Port must be the same as set in the WinSC software. Values by default: WinSC - 923, CQ-64GSMrf - 930.

Command is **89P<port>**

Example: **89P923**

3. Set the Access Point Name. You will have to ask your mobile operator for the APN. Name by default is "internet".

Command is **89A<APN>**

Example: **89Ainternet**

4. If needed, set the login to access the GPRS service. You will have to ask your mobile operator whether you need any and what it should be. No login is set by default.

Command is **89Y1<login>**

Example: **89Y1login**

5. If needed, set the password to access the GPRS service. You will have to ask your mobile operator whether you need any and what it should be. No password is set by default.

Command is **89Y2<password>**

Example: **89Y1password**

6. After all the configurations is made you have to activate GPRS mode in the device.

To do so send **89G+**

RF-ID tag reading and sending panic message

To read a RF-ID tag you have to press any of two buttons and put upper part of the device near the tag (1-2 centimeters). When the button is pressed READ/GSM LED will turn red and you have 5 seconds to read the tag.

If the tag is successfully read than MODE/PWR LED will turn green for one second and triple sound signal will occur.

If device failed to read the tag, MODE/PWR LED will turn red for one second and short sound signal will occur. In that case repeat the operation.

To send a panic message you have to simultaneously press both buttons and hold them for one second.

Event codes

SMS messages received by installer	SMS code for WinSC	GPRS code for WinSC	Description
CONFIRM ID	---	---	Confirm your phone number by replying with the module account
FAIL	---	---	Wrong command
OK	---	---	Command successfully executed
---	R800000	3800000	Duty guard changed
---	E137000	1137000	Tamper alarm
---	R137000	3137000	Tamper restore
---	E705000	1705000	Guard didn't go patrolling on time
---	E7060xx	17060xx	Partial patrolling, where xx – amount of missed tags
---	E707000	1707000	Time/date loss
---	R707000	3707000	Time/date restore
---	E704000	1704000	Multiple pressing of the read button
---	R7030xx	37030xx	Patrolling started from tag xx, where xx – tag number
---	E7010xx	17010xx	Route violation in the xx point, where xx – tag number

SMS messages received by installer	SMS code for WinSC	GPRS code for WinSC	Description
---	R7010xx	37010xx	Route restored at xx point, where xx – tag number
---	E7020xx	17020xx	Time interval exceeded for point xx, where xx – tag number
---	E80200x	180200x	Route number set as x, where x – route number code
---	E80300x	180300x	Mode x activated, where x – mode number
---	E80400x	180400x	Route x activated, where x – route number
---	E805001	1805001	Installer number changed
---	E805002	1805002	1-st phone number registered
---	E805003	1805003	1-st phone number deleted
---	E805004	1805004	2-nd phone number registered
---	E805005	1805005	2-nd phone number deleted
---	E806001	1806001	Guard tag programming mode activated
---	E806002	1806002	Guard tag adding mode activated
---	E806003	1806003	Guard tag replacing mode activated
---	E806004	1806004	Route tag programming mode activated
---	E806005	1806005	Route tag adding mode activated
---	E806006	1806006	Route tag replacing mode activated
---	E807001	1807001	IP-address set
---	E807002	1807002	APN set
---	E807003	1807003	GPRS login set
---	E807004	1807004	GPRS password set
---	E807005	1807005	TCP-port set
---	E807006	1807006	Number of attempts to connect to software is set
---	E807007	1807007	Time between connection attempts is set
---	E807008	1807008	DNS-server IP-address is set
---	E807009	1807009	Domain name is set
---	E808001	1808001	Time interval is set
---	E808002	1808002	4-th mode parameters are set

SMS messages received by installer	SMS code for WinSC	GPRS code for WinSC	Description
---	E808003	1808003	Calendar is turned on
---	E808004	1808004	Calendar is turned off
---	E808005	1808005	Modes for each day of the week are set
---	E808006	1808006	Routes for each day of the week are set
---	E809001	1809001	GPRS mode enabled
---	E809002	1809002	GPRS mode disabled