



IQTB-GS820

User Guide

GSM gateway controlled by SMS, making a call, IVR self service and Bluetooth terminal, with 2 digital optically isolated inputs and 2 power outputs.

Obsah

1. Product features	3
2. Description of IQTB-GS820	5
3. Power supply wiring	6
4. Instalation	7
4.1 Inserting SIM Card to IQTS-GS820	7
4.2 Powering IQTB-GS820 On	8
5. Explanatory Notes to Commands	9
6. Basic Control	11
7. Advanced Settings	15
8. Control by IQcontrol Suite for WINDOWS	40
IQControl subprogram	40
8.2 Commands editor subprogram	46
8.3 Numbers Editor Subprogram	50
8.4 IVR Completor subprogram	50
9. Control by IQcontrol Smart Application for OS Android..	57
9.1 Control by SMS	58
9.2 Control by terminal via wireless Bluetooth connection	59
Click the buton	59
10. Meaning of integrated button	61
11. Factory default settings	61
11.1 Manual configuration of factory default values	61
11.2. Factory default settings	62
12. LED indicators	63
12.1. Functional indication	63
12.2. Error conditions	64
13. Error messages	64
14. Specification	65
15. Instalation rules for dual radio device	65
16. Features and connection of switching elements	66
16.1 Lifetime for using AC voltage	66
16.2 Max DC load breaking capacity	66
16.3 Load connection to the device output	67
17. Input specification – digital inputs	67
18. Accessories	68
19. Configuration of original English set of commands	68
20. Operation, maintenance and security safety recommendations	68
21. Warranty	69

Acknowledgements

Thank you that you have purchased this IQTB-GS820 produced by IQtronic technologies Europe Ltd, the real manufacturer providing the unique and unrivalled products. Our company has produced IQ socket products for already 10 years and has delivered them throughout the world. Our products always offer you a lot more. But consider by yourself...

1.Product features

IQTB-GS820 is a highly sophisticated device intended to control electrical appliances connected to device's output power socket by sending SMS messages and making calls to device's SIM card number by means of a mobile phone. IQTB-GS820 can be also controlled wirelessly via Bluetooth using IQcontrol software terminal. An interactive voice self service (IVR) is another way to control your device.

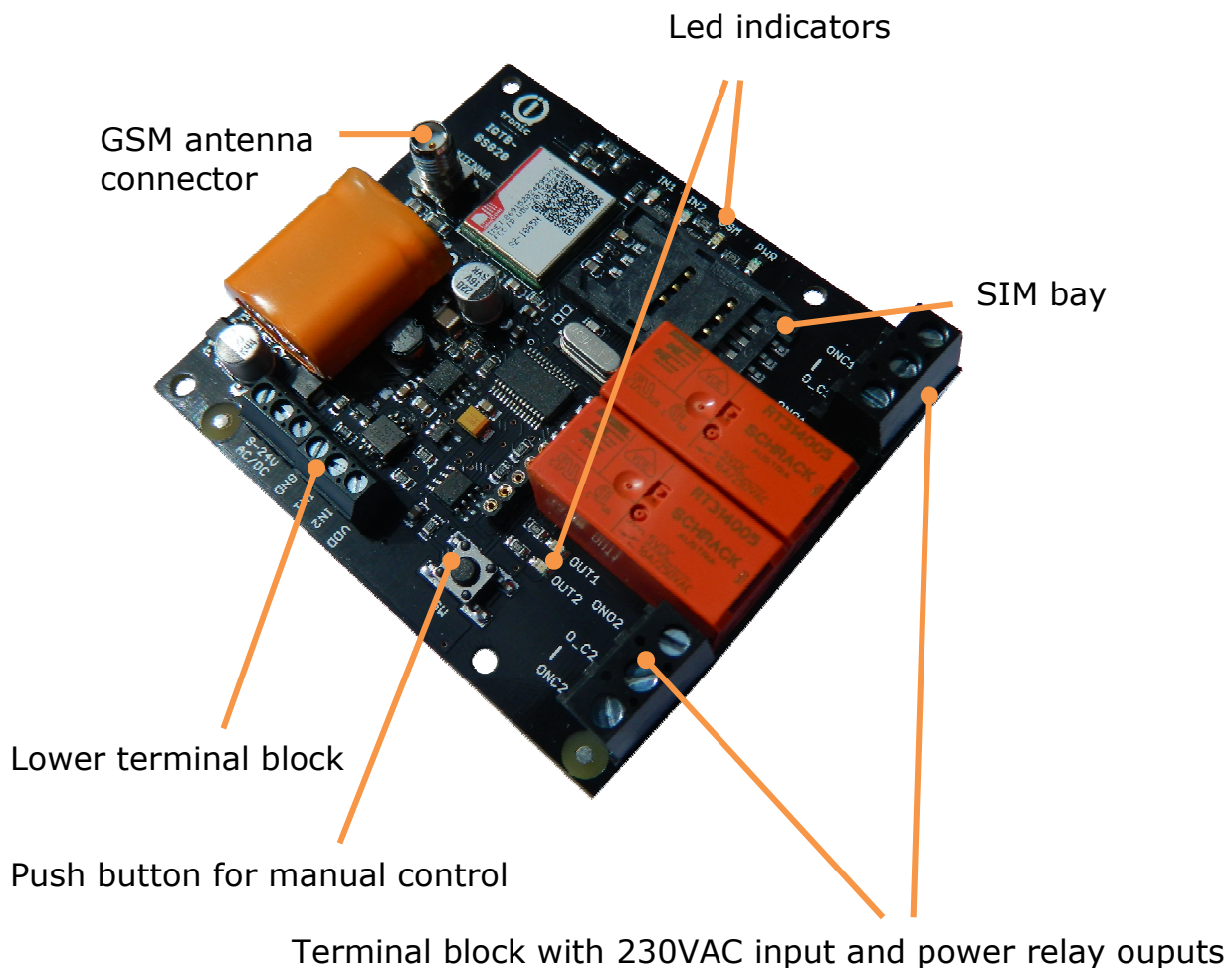
This product has also two optically isolated digital inputs It incorporates up to 90 implemented SMS commands.

The output of the device is two **230V** switched power relay outputs with the maximum current capacity of **16A**. **It can be used for capacitive loads – e.g. switched power supplies as well.**

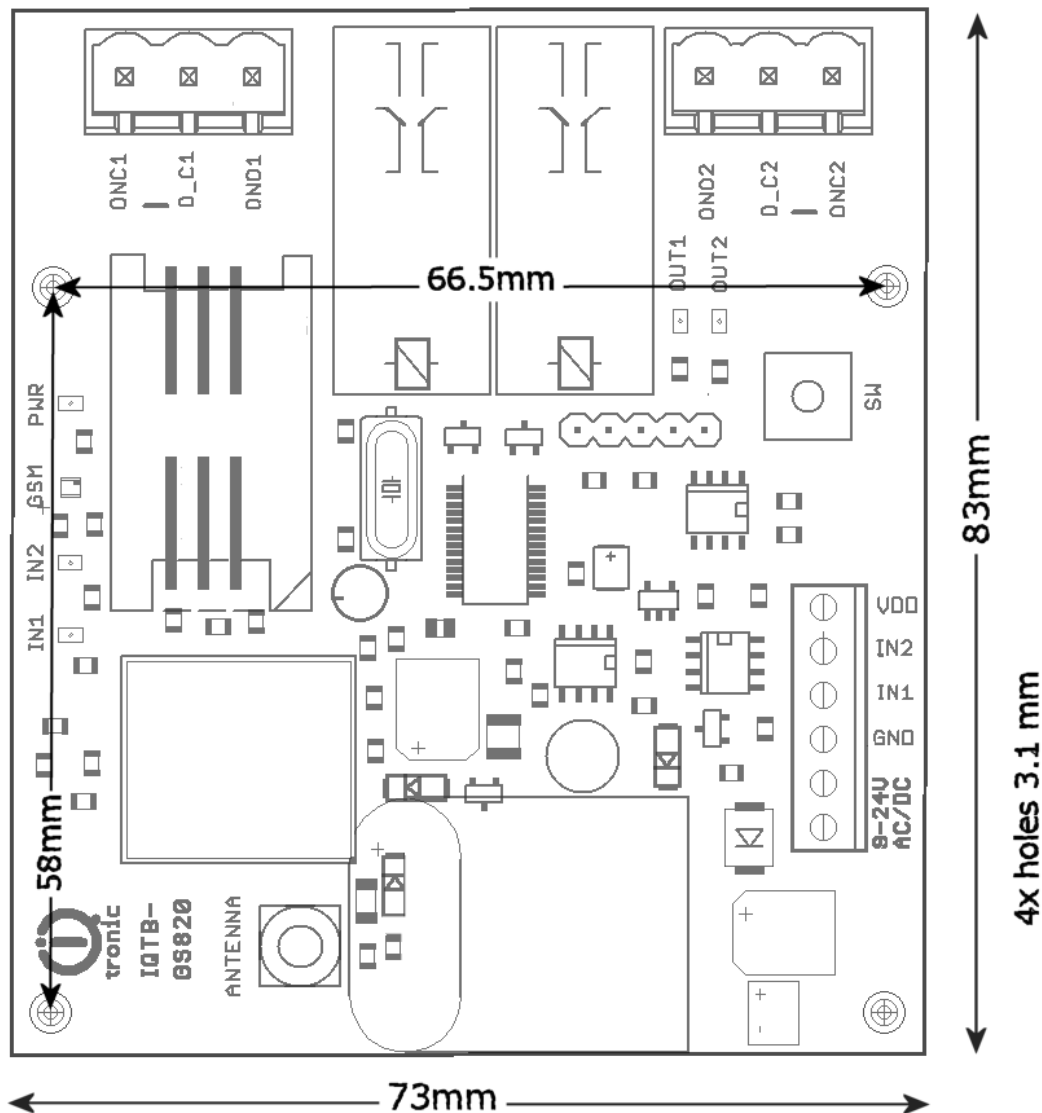
Among others, the product has the following interesting functions:

- **Designed for universal AC or DC voltage type up 24VAC or 40VDC.**
- Turning electrical appliances on and off by SMS messages or by making a call to device's internal SIM card number.
- Automatical control: turning electrical appliances on and off at predetermined time by means of a scheduler or at a user-specific time.
- **Sending automatically an alert on power failure and restore.**
- Restarting appliances, such as servers.
- Monitoring the external input status: Two digital inputs for DC voltage.
- Alarm function: event at digital inputs, power failure, power restore.
- Alarm in case of a GSM signal jamming.
- Up to 12 alarm numbers, each of the numbers can be set for a different event.
- Time scheduler function, up to 50 events.
- Automatical logging of all events into the internal memory.
- **Interactive voice self service that can be customized by a user.**
- Configuration via Bluetooth with a professionally designed IQcontrol software terminal with an intuitive usage.
- One Administrator password and up to one thousand user numbers.

- Texts of commands and responses can be customized by user.
- Option to save and restore of the configuration, to download event log file.
- User numbers can be uploaded from a text file.
- Upgradeable firmware.
- Possibility to change the rights of SMS commands.
- Supports control from Internet SMS gateways.
- Sending of SMS status via GPRS (TCP or UDP).
- **Advanced integrated navigation HELP.**
- Option to control by means of ANDROID application.
- Connector for external antenna for areas with poor GSM signal.
- Option to insert more commands in one SMS message (160 characters).
- Two independent actions can be set for incoming call.



2. Description of IQTB-GS820



Power Terminal Block

ONC1,O_C1,ONO1 – isolated contacts of relay/output1 16A

ONC2,O_C2,ONO2 – isolated contacts of relay/output2 16A

Lower Terminal Block

AC/DC power supply, it can be used AC or DC voltage up 24Volts.

GND - Ground potential of device

IN1 - digital input 1, two stage, 0 – 30 VDC, S0, optocoupler

IN2 - digital input 2, two stage, 0 – 30 VDC, S0, optocoupler

VDD – System voltage 3V3 without fuse protector !

Please note that all signals at the lower terminal block are referenced to the **GND pin**. Be careful when using any from provided voltage outputs, it is not recommended to take significant current from these pins.

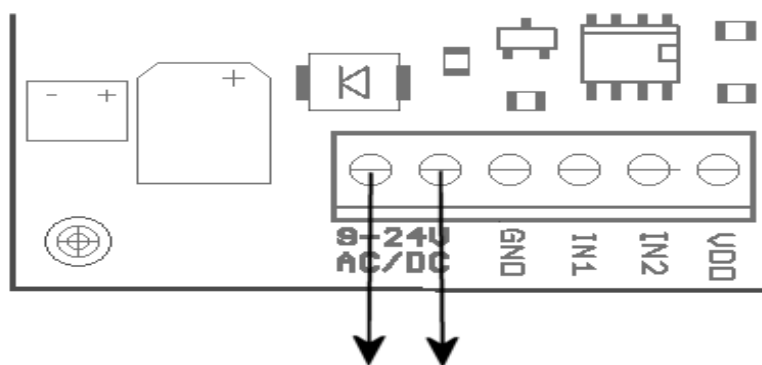
WARNING!



Please respect maximum current rating of outputs - 16A for resistive load. Do not overload your IQTB-GS820, as this may damage or shorten life span of the internal switching relays, which is not covered by warranty. It is recommended to use external contactors in case the higher current is required and/or capacitive/inductive load is used.

3. Power supply wiring

Your IQTB-GS820 can be powered by voltage range from 10 up 40Volts for DC voltage and from 8V up 24V for AC voltage type. The mostly recommended voltage range is 12 – 16VDC.

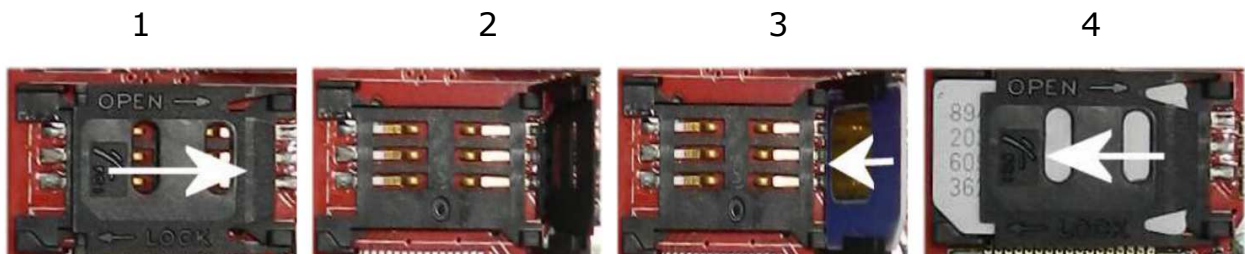


Connect this pins to power supply. It can be powered by AC or DC voltage.

4. Instalation

4.1 Inserting SIM Card to IQTS-GS820

- Unlock SIM bay by sliding the retention latch to the right (1)
- Open the retention latch (2)
- Place the SIM card inside, observing proper orientation (3)
- Close the retention latch and then lock by gently sliding to the left (4)



To remove SIM from your IQsocket IQSB-GSM900, repeat the same steps.



WARNING!

PIN authorization should be turned off before the SIM card is used in your IQTB-GS820.

Authorization can be turned off by inserting the SIM card into your GSM phone and disabling SIM PIN usage by using the appropriate command usually located in 'Settings' phone menu. Now you can remove the SIM card from your phone and insert it into your IQTB-GS820.



Note...

It is highly recommended to delete all received SMS messages, stored on the SIM card before using it in your IQTB-GS820.

4.2 Powering IQTB-GS820 On

Once the SIM card has been inserted, you can switch on external 12VDC power supply to power your IQTB-GS820 on. Verify device is operating by observing status of the LEDs.

- Once power is connected, all six LED indicators will blink shortly and if everything is ok, the Power LED will turn to solid Red.
- In case of active PIN authorization on the SIM card, GSM LED starts blinking fast (approx. three times per second).
- GSM LED start to blink slowly (approx. every three seconds) blue, once device was successfully logged into a GSM network. If the LED blinks about every second, searching for a GSM network is in progress.
- The Output1/2 LEDs indicate state of switched outputs.

Your IQTB-GS820 is now ready to use.

*Please refer to **chapter12.2 ERROR conditions** status in case of any other indications.*

5. Explanatory Notes to Commands

To control IQTB-GS820 in your language, please select the language version, as shown in chapter IQControl subprogram. The device has been pre-configured for the English language; and therefore particular commands are described in both languages.

Device contains built-in help system. If you send a message containing text **HELP** to the number of SIM inserted in your device, you will get in response the control commands, and in response to **CONFIG** you will get the configuration commands. If you need to know the syntax and description of any command, use the SMS message **HELP=<command>**, e.g. HELP=Restart and you will get description of a particular command.

All commands are sent in SMS messages to the SIM card number inserted in device. Commands have the following format:

pinCOMMAND - e.g. 1234Turn off – if the PIN protection was activated (*see chapter 0 7. Advanced Settings*)

COMMAND - e.g. Turn off – *with unconfigured PIN (factory default)*

Command Nr.	01		
Text	TurnOn		
Function	It turns on the output power socket.		
Response	TurnedOn		
Access Rights	User/Admin	License	Base

Command Number: It is the system specification for a command that is fixed, and so it cannot be changed. You can only modify any text in your device; if you change for instance **TurnOn** to **MyCommand**, and you would like to make further changes of this command's name, you need to know the number of the original command in order to identify that command.

Text: A command in the form of a text string, in English as factory default language.

Function: It specifies the function of the particular command.

Response: The device will give a response if the command is entered in the correct form.

License: **Base** license is included in the price for the product, **Full** – for a license fee you will obtain a license key to be entered in your device by means of an SMS message or via BT IQcontrol terminal software and then the commands and functions of the particular license will be activated.

Access Rights: Admin, this command can be only used by the pre-configured Administrator; in case the Administrator has not been pre-configured, any number, i.e. anyone, can control and configure the device and is then considered to be the Administrator.

User - this command can be also used by users from the user list - up to 1000 numbers.

Description of control and configuration of IQTB-GS820 is divided into three parts, each suitable for a specific user group.

1. Basic part is suitable especially for those users who wish to use the basic functions as quickly as possible. It is indicated by the green square located on the right side or at the top of the page.

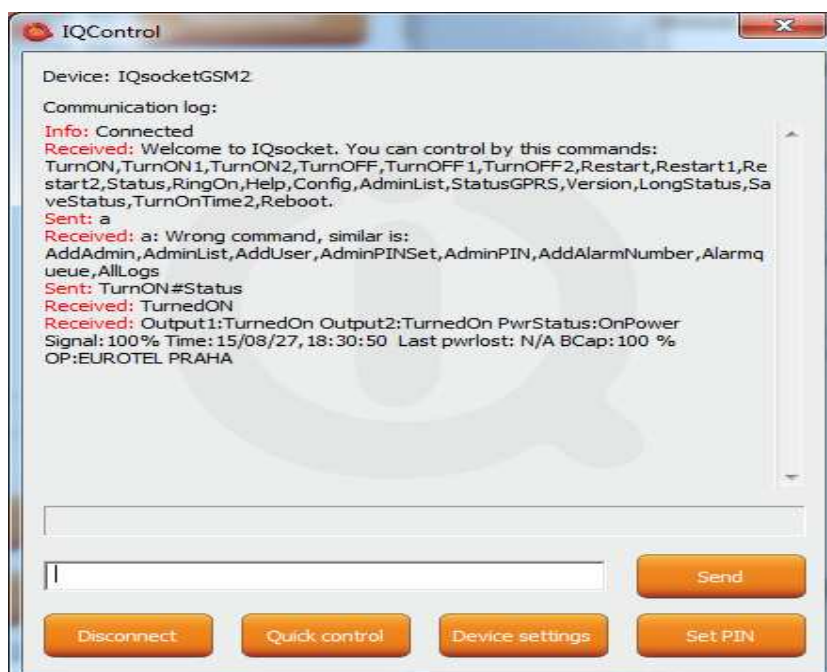
2. Advanced part contains advanced functions such as security, GPRS, time intervals, alarms, etc. It is indicated by the yellow square on the right side and in the middle part of the page.

3. Expert part is particularly appropriate for those users who wish to get the maximum of the product. It presents control by the use of the smart application IQcontrol for Android and IQcontrol Suite for Windows. Furthermore, it provides information on the voice self service or how to create an own voice self service, how to edit the text of commands and responses, transfer of the product settings, how to save LOG events into a file. Then it presents the Numbers Editor for security and saving the set in the product, firmware upgrade, and others. It is indicated by the red square on the right and in the middle part of the page.



Note...

Your device has built-in intelligent help system allowing faster control actions; if you send an incorrect command, your device will offer similar commands to you. You may also send more than one command consecutively in a single SMS. Your device will then reply by individual SMS messages. Please see an example from the terminal of IQcontrol Suite for Windows when sending the character 'a' and two commands TurnedOn and Status - separated by character #.



6. Basic Control

If you send a message containing text "HELP" to the telephone number of SIM in your device, the following control commands will be displayed:

These commands are displayed automatically in the welcome note after you have logged in by the IQcontrol software terminal via Bluetooth.

Command Nr.	01		
Text	TurnOn		
Function	It turns on the both outputs OUT1 and OUT2.		
Response	TurnedOn		
Access Rights	User/Admin	License	Base

Command Nr.	02		
Text	TurnOn1		
Function	It turns on the output OUT1.		
Response	TurnedOn1		
Access Rights	User/Admin	License	Base

Command Nr.	03		
Text	TurnOn2		
Function	It turns on the output OUT2.		
Response	TurnedOn2		
Access Rights	User/Admin	License	Base

Command Nr.	110		
Text	TurnOnTime2		
Function	It turns on the output OUT2 only for a specified time in range of 1to 240 minutes. The text TurnONTime2=10, it turns on the output OUT2 for 10 minutes.		
Response	TurnedOn		
Access Rights	User/Admin	License	Base

Command Nr.	04		
Text	TurnOff		
Function	It permanently turns off the output socket.		
Response	TurnedOff		
Access Rights	User/Admin	License	Base

Command Nr.	05		
Text	TurnOff1		
Function	It permanently turns off the output OUT1.		
Response	TurnedOff1		
Access Rights	User/Admin	License	Base

Command Nr.	06		
Text	TurnOff2		
Function	It permanently turns off the output OUT2.		
Response	TurnedOff		
Access Rights	User/Admin	License	Base

Command Nr.	07		
Text	Restart		
Function	It changes the status of both outputs for a user specified time RestartTime/RestartCas.		
Response	Restarted		
Access Rights	User/Admin	License	Base

Command Nr.	08		
Text	Restart 1		
Function	It changes the status of the output OUT1 for a user specified time RestartTime/RestartCas.		
Response	Restarted1		
Access Rights	User/Admin	License	Base

Command Nr.	09		
Text	Restart 2		
Function	It changes the status of the output OUT2 for a user specified time RestartTime/RestartCas.		
Response	Restarted2		
Access Rights	User/Admin	License	Base

Command Nr.	10		
Text	Status		
Function	It displays a short SMS message about the status of the outputs and inputs of this device.		
Response	Output1: TurnedOff Output2: TurnedOff, Signal:61% Time:15/04/23,19:47:30 Last pwrlost: 15/04/23,18:40:01 OP: EUROTTEL PRAHA	Vystup1:Vypnuto Vystup2: Vypnuto Signal:61% SysCas:15/04/23,19:47:30 Posledni vypadek: 15/04/23,18:40:01 OP: EUROTTEL PRAHA	
Access Rights	User/Admin	License	Base

Command Nr.	97		
Text	LongStatus		
Function	It displays a detailed SMS message about the status of the outputs and inputs of this device.		
Response	Output1:TurnedOn Output2: TurnedOn, DIN1: 0 DIN2: 0 Time:15/04/23,19:47:30 Last pwrlost: 15/04/23,18:40:01 OP: EUROTTEL PRAHA	Vystup1:Zapnuto Vystup2: Vypnuto DIN1: 0 DIN2: 0 Time:15/04/23,19:47:30 Last pwrlost: 15/04/23,18:40:01 OP: EUROTTEL PRAHA	
Access Rights	User/Admin	License	Base

Command Nr.	98		
Text	SaveStatus		
Function	It saves the status of your device at a given time in the internal device LOG that can be displayed.		
Response	SaveStatus – OK		
Access Rights	User/Admin	License	Base

Command Nr.	11		
Text	RingOn		
Function	It makes a call back for time specified by RingOnTime ProzvonCas		
Response	No response		
Access Rights	User/Admin	License	Base

Command Nr.	12		
Text	Help		
Function	It displays all control commands – In case of the USER access rights, the command HELP will give a description of the command syntax.		
Response	See description		
Access Rights	User/Admin	License	Base

Command Nr.	13		
Text	Config		
Function	It displays configuration commands – in case of ADMIN access rights Config=50 will display commands starting from the 50 th command, since a list can contain more characters than a maximum of 4x160 (4 SMS messages), and then each undisplayed command is listed as a character '.'		
Response	See description		
Access Rights	User/Admin	License	Base

Command Nr.	20		
Text	AdminList		
Function	It displays the Administrator number.		
Response	AdminList=42012345678		
Access Rights	User/Admin	License	Base

Command Nr.	42		
Text	StatusGPRS		
Function	It sends information on the status of the device by GPRS. User is allowed to customize the text and parameters; otherwise standard STATUS will be sent. It is required from the user to have configured GPRS parameters and have GPRS Internet service on the SIM card.		
Response	StatusGPRS – OK		
Access Rights	User/Admin	License	Base

Command Nr.	88		
Text	Version		
Function	It displays the internal software version.		
Response	Ver. 1.0.0.		
Access Rights	User/Admin	License	Base



Note...

You can assign the **ADMIN/USER Access Rights** for each command in the **COMMANDS EDITOR** of the **IQcontrol SUITE**. This guide presents only commands as used in factory default settings.

7. Advanced Settings

If you send a message containing text "CONFIG" to the telephone number of your socket, the configuration commands will be displayed.

These commands can be used only by the specified ADMIN, if it's defined. In factory default settings any user is considered to be ADMIN. You can set the User or ADMIN access rights in the Commands Editor of the IQcontrol Suite software.

Since the list of configuration commands can be longer than maximum allowed size of 4 SMS messages (4x160 characters), each undisplayed command is listed as a character '.' If you wish to see the full list, for example to display commands starting from the 50th command, you need to use the suffix "=50".

If you send any configuration command correctly, you will get in response confirmation in the form of the suffix "-OK". You will get the current settings for parameters of any command when you add the character '?' following the particular command. As an illustration, in order to know the settings for the **Output** command, you will send a message **Output?** and your device will send to you the settings **Output=(Remeber),On,Off**, where the parameter in parentheses is currently configured. If you wish to change the active parameter, select the particular parameter as follows: **Output=On**.

Illustration of using the **Config|Konfig** command:

RestartTime, RingactionAdmin, RingactionUser, NCactionAdmin, NCactionUser, AddAdmin, AddUser, DelUser, DelAllUsers, UserList, UserAList, RingTimes, RingOnTime, SMSPerDay, Output, AdminPINSet, AdminPIN, UserPINSet, UserPIN, BTPIN, PINIVR, ScheduleAdd, ScheduleDel, ScheduleDeLAll, SchedulerLIST, SchedulerOptions, DeviceName,

Illustration of using the **Config=50|Konfig=50** command:

Version, PinLimitsIVR, PinLimitsBT, UserTypeIVR, AllLogs, SystemLog, ControlLog, ConfigLog, EraseSensors, LongStatus, SaveStatus, Default, GPRS, GPRSAPN, GPRSshost, GPRSsport, LEDoption, CntDiv1, CntDiv2, CntDiv3, NextTime1, NextTime2, NextTime3, SeparApply, Separators, Bluetooth, License, IMEI, IVRSoundDelay, TurnOnTime2, HoursCounter, RingActionBlock, Reboot.

Command Nr.	14		
Text	RestartTime		
Function	It sets the restart time for both outputs OUT1 and OUT2 in seconds, a range of 1 up to 300.		
Settings with '?'	RestartTime=30		
Settings Change	RestartTime= 10		
Access Rights	Admin	License	Base

Command Nr.	122		
Text	Reboot		
Function	It executes the restart of the device itself, BT connection will be terminated.		
Response	Reboot – OK		
Access Rights	Admin	License	Base

Command Nr.	15		
Text	RingActionAdmin		
Function	Action after confirmed incoming call to the Admin number if the number is set. If not, any number is considered to be Admin.		
Settings with '?'	(NoAction), HangUP, Restart, Reswitch, IVR		
RingActionAdmin=No Action	The device gives no response to an incoming call, however, the information on time of the call and the calling number, including the number of rings, are saved in an internal LOG.		
AkceZvoneniAdmin =Zadna			
RingActionAdmin=HangUp	The device hangs up and makes no action to an incoming call longer than one ring*. A record with time of the call and the calling number, including the number of rings, will be saved in an internal LOG.		
AkceZvoneniAdmin =Zavesit			
RingActionAdmin=Restart	The device hangs up the incoming call* and performs the RESTART of both outputs. Restart1 – OUT1 only. Restart2 – OUT2 only. A record with time of the call and the calling number, including the number of rings and the performed action, will be saved in an internal LOG.		
AkceZvoneniAdmin =Restart			
RingActionAdmin=Reswitch	The device hangs up the incoming call* and makes a permanent change of the status (TurnOff/TurnOn, TurnOn/TurnOff) of both outputs. Reswitch1 – OUT1 only. Reswitch2 – OUT2 only. A record with time of the call and the calling number, including the number of rings and the performed action, will be saved in an internal LOG.		
AkceZvoneniAdmin =Prepni			
RingActionAdmin=IVR	The device answers the incoming call* and activates the voice selfservice. A record with time of the call and the calling number, including the number of rings and the performed action, will be saved in an internal LOG. It is required that a voice file is recorded and the FULL license is activated.		
AkceZvoneniAdmin =IVR			
Access Rights	Admin	License	Base

Command Nr.	16		
Text	RingActionUser		
Function	Action for confirmed incoming call to a user number if the number is set. Otherwise, it will be ignored.		
Settings with '?'	(NoAction), HangUP, Restart, Reswitch, IVR		
RingActionUser=NoAction	The device gives no response to an incoming call, however, the information on time of the call and the calling number, including the number of rings, are saved in an internal LOG.		
AkceZvoneniUzivatel=Zadna			
RingActionUser=HangUp	The device hangs up and makes no action to an incoming call longer than one ring*. A record with time of the call and the calling number, including the number of rings, will be saved in an internal LOG.		
AkceZvoneniUzivatel=Zavesit			
RingActionUser=Restart	The device hangs up the incoming call* and performs the RESTART of both outputs socket. Restart1 – OUT1 only. Restart2 – OUT2 only. A record with time of the call and the calling number, including the number of rings and the performed action, will be saved in an internal LOG.		
AkceZvoneniUzivatel=Restart			
RingActionAdmin=Reswitch	The device hangs up the incoming call* and makes a permanent change of the status (TurnOff/TurnOn, TurnOn/TurnOff) of both outputs. Reswitch1 – OUT1 only. Reswitch2 – OUT2 only. A record with time of the call and the calling number, including the number of rings and the performed action, will be saved in an internal LOG.		
AkceZvoneniUzivatel=Prepni			
RingActionAdmin=IVR	The device answers the incoming call* and activates the voice selfservice. A record with time of the call and the calling number, including the number of rings and the performed action, will be saved in an internal LOG. It is required that a voice file is recorded and the FULL license is activated.		
AkceZvoneniUzivatel=IVR			
Access Rights	Admin	License	Base

***Note...**

You can define the number of rings by the **RingTimes/PocetProzvaneni** command.



Command Nr.	17
Text	NCActionAdmin
Function	Action for an incoming call to the Admin number if the number is set. The action will be made unless the number of rings exceed a user-specified limit. And thus the Admin can perform two actions by making calls. If no Admin number is set, any number is considered to be Admin.
Settings with '?'	(NoAction), Restart, Restart1, Restart2, Reswitch, Reswitch2, Reswitch2
NCActionAdmin =NoAction	The device gives no response to an incoming call, however, the information on time of the call and the calling number, including the number of rings, are saved in an internal LOG.
NCAkceAdmin =Zadna	
NCActionAdmin =Restart	The device will perform the RESTART of both output sockets when an incoming call is shorter than the specified number of rings. . Restart1 – OUT1 only. Restart2 - OUT2 only. A record with time of the call and the calling number, including the number of rings and the performed action, will be saved in an internal LOG.
NCAkceAdmin =Restart	
NCActionAdmin =Reswitch	The device will make a permanent change of the status (TurnOff/TurnOn, TurnOn/TurnOff) of the output socket when an incoming call is shorter than the specified number of rings. . Reswitch1 – OUT1 only. Reswitch2 – OUT2 only. A record with time of the call and the calling number, including the number of rings and the performed action, will be saved in an internal LOG.
NCAkceAdmin =Prepni	
Access Rights	Admin License Base

Command Nr.	18		
Text	NCActionUser		
Function	Action for an incoming call to a User number if the number is set. The action will be made unless the number of rings exceeds a user-specified limit. And thus the User can perform two actions by making calls. If no User number is defined, an option will be ignored.		
Settings with '?'	(NoAction), Restart, Restart1, Restart2, Reswitch, Reswitch2, Reswitch2		
NCActionUser=NoAction	The device gives no response to an incoming call, however, the information on time of the call and the calling number, including the number of rings, are saved in an internal LOG.		
NCAkceUzivatel=Zadna			
NCActionUser=Restart	The device will perform the RESTART of the output socket when an incoming call is shorter than the specified number of rings. Restart1 – OUT1 only. Restart2 - OUT2 only. A record with time of the call and the calling number, including the number of rings and the performed action, will be saved in an internal LOG.		
NCAkceUzivatel=Restart			
NCActionUser=Reswitch	The device will make a permanent change of the status (TurnOff/TurnOn, TurnOn/TurnOff) of the output socket when an incoming call is shorter than the specified number of rings. Reswitch1 – OUT1 only. Reswitch2 – OUT2 only. A record with time of the call and the calling number, including the number of rings and the performed action, will be saved in an internal LOG.		
NCAkceUzivatel=Prepni			
Access Rights	Admin	License	Base

Command Nr.	19		
Text	AddAdmin		
Function	It adds the Administrator number; this number is the only one that is allowed to edit all parameters of the device.		
Settings with '?'	N/A, use AdminList		
AddAdmin	This command will save the number from which a SMS message was sent. The device will confirm whether it has been added for the first time or has been overwritten.		
VlozAdminCislo			
AddAdmin=420123456789	<i>You can also select a different number than the one from which a SMS message was sent. By this command you can add the Admin number via BT terminal.</i>		
VlozAdminCislo=420123456789			
Access Rights	Admin	License	Base

Command Nr.	21		
Text	AddUser		
Function	It adds a User number for which the device can only be used in a limited way – only control commands. There may be up to one thousand User numbers.		
Settings with '?'	N/A, use UserList or UserAList		
AddUser=420123456789,alias	<i>It adds the User number. The alias serves for better orientation and for the user identification.</i> There may be several possible records! <i>You can add a number with no alias and several numbers following each other as well, e.g.</i> AddUser=420123456789;4201111111 <i>or:</i> AddUser=420123456789,alias1;4201111111,alias2 <i>or a combination up to the size of one SMS (160 characters).</i>		
VlozCisloUzivatele=420123456789,alias			
Access Rights	Admin	License	Base



Note...

*It is possible to upload **a text file containing user numbers** using IQcontrol suite. Text file can be generated by the user manually by a text editor, or by the Numbers Editor (full license is needed).*

The **Base license** supports **100** user numbers. The **Full license** supports **1000** user numbers.

Command Nr.	22		
Text	DelUser		
Function	It deletes a User number for which the device can only be used in a limited way – only control commands. There may be up to one thousand User numbers.		
Settings with '?'	N/A, use UserList or UserAList		
DelUser=420123456789	<i>It deletes the User number. The alias serves for better orientation and for the user identification. You can delete one or several numbers following each other:</i> DelUser=420123456789;4201111111 <i>up to the size of one SMS (160 characters).</i>		
VymazCisloUzivatele=420123456789			
Access Rights	Admin	License	Base

Command Nr.	23		
Text	DelAllUsers		
Function	It deletes all user numbers. It is confirmed by the suffix - OK.		
Settings with '?'	N/A, use UserList or UserAList		
Access Rights	Admin	License	Base

Command Nr.\	24		
Text	UserList		
Function	It displays numbers of all added users. It displays a list of numbers with no aliases.		
Settings with '?'	N/A		
UserList=1	<i>It displays a list from the first number. You can display the whole list by changing the number. The size of the reply text is limited up to the size of 4 SMS messages (4x160 characters).</i>		
SeznamUzivatelu=1			
Access Rights	Admin	License	Base

Command Nr.\	25		
Text	UserAList		
Function	It displays numbers of all added users. It displays a list of numbers with its aliases.		
Settings with '?'	N/A		
UserAList=1	<i>It displays a list from the first number. You can display the whole list by changing the number. The size of the reply text is limited up to the size of 4 SMS messages (4x160 characters).</i>		
SeznamAUzivatelu=1			
Access Rights	Admin	License	Base

Command Nr.	26		
Text	RingTimes		
Function	It configures the limit of ring times based on which actions to incoming calls are evaluated, range of 1 to 6. If the user hangs up before the specified number, an action will be made based on the defined commands NCAActionxxx/NCAkcexxx		
Settings with '?'	Restarttime=1		
Change of settings	RestartTime=10		
Access Rights	Admin	License	Base

Command Nr.	119		
Text	RingActionBlock		
Function	It configures the time of blocking action of incoming call from last processed ringaction, range of 0 to 250. 0 – unblocked.		
Settings with '?'	RingActionBlock =0		
Change of settings	RingActionBlock =20		
Access Rights	Admin	License	Base

Command Nr.	27		
Text	RingOnTime		
Function	It configures the time of call backs in seconds, range of 5 to 30. For example: In case of an alarm or when the RingON/Prozvon command is used.		
Settings with '?'	RingOnTime =15		
Change of settings	RingOnTime =20		
Access Rights	Admin	License	Base

Command Nr.	28		
Text	SMSPerDay		
Function	Number of sent SMS messages from the device per day. Range of 0 to 1000. 0 is unlimited number of SMS.		
Settings with '?'	SMSPerDay =50		
Change of settings	SMSPerDay =10		
Access Rights	Admin	License	Base

Command Nr.	29		
Text	Output		
Function	Settings of the status of the output socket after plugging into power supply.		
Settings with '?'	(Remeber),On,Off		
Output=Remember Vystup=Pamatu	The output socket will be configured to have the status in which it was before the own power supply loss.		
Output=On Vystup=Zapnuta			
Output=Off Vystup=Vypnuta	The output socket will be always configured to have the status TurnedOff after plugging into power supply.		
Access Rights	Admin	License	Base

Command Nr.	30		
Text	AdminPINSet		
Function	PIN Activation/PIN deactivation for the Administrator number if specified.		
Settings with '?'	(No), Yes		
AdminPINSet=No	PIN is not activated in an incoming SMS.		
AdminPINVolba = Vyputo			
AdminPINSet=Yes	PIN is activated in an incoming SMS.		
AdminPINVolba = Zapnuto			
Access Rights	Admin	License	Base

Command Nr.	31		
Text	AdminPIN		
Function	A PIN option for the security of incoming SMS messages from the Administrator number. This PIN always contains 4 digits and if this option is activated, then this PIN must be inserted before the command text. For example: To turn off 0000TurnOff 0000Vypni		
Settings with '?'	0000		
AdminPIN=1234	It modifies PIN to 1234.		
AdminPIN=1234			
Access Rights	Admin	License	Base

Command Nr.	32		
Text	UserPINSet		
Function	PIN Activation/PIN deactivation for user numbers if specified.		
Settings with '?'	(No), Yes		
UserPINSet=No	PIN is not activated in an incoming SMS.		
UzivatelPINVolba = Vyputo			
UserPINSet=Yes	PIN is activated in an incoming SMS.		
UzivatelPINVolba = Zapnuto			
Access Rights	Admin	License	Base

Command Nr.	33		
Text	UserPIN		
Function	A PIN option for the security of incoming SMS messages from the user numbers. This PIN always contains 4 digits and if this option is activated, then this PIN must be inserted before the command text. For example: To turn off 0000TurnOff 0000Vypni		
Settings with '?'	0000		
UserPIN=1234	<i>It modifies PIN to 1234.</i>		
UserPIN=1234			
Access Rights	Admin	License	Base

Command Nr.	34		
Text	BTPIN		
Function	A PIN option for the security of a Bluetooth terminal. This PIN always contains 4 digits.		
Settings with '?'	0000		
BTPIN=1234	<i>It modifies PIN to 1234.</i>		
BTPIN=1234			
Access Rights	Admin	License	Base

Command Nr.	35		
Text	PINIVR		
Function	A PIN option for a voice selfservice requesting the user to enter this PIN. This PIN always contains 4 digits.		
Výpis nastavení s '?'	0000		
PINIVR=1234	<i>It modifies PIN to 1234.</i>		
PINIVR=1234			
Access Rights	Admin	License	Base

Command Nr.	36		
Text	ScheduleAdd		
Function	It adds an event for the Scheduler. Syntax is ScheduleAdd=hh:mm,*,Action.		

	Where hh means hours, mm means minutes, * means every day; numbers 1 to 7, Monday to Sunday can be used instead. Action means a Scheduler event that can be displayed (e.g. if the user changes the control commands by the ScheduleOptions command), for more information, please refer to its description. A maximum number of time records is 30.		
Settings with '?'	N/A		
ScheduleAdd=10:31,7,TurnOn	It adds a time schedule for turning the output socket on at 10:31 a.m. always on Sunday.		
VlozPlan=10:31,7,Vypni			
ScheduleAdd=14:20,*,Status	It adds a time schedule for sending SMS on the status of the socket at 2:20 p.m. every day. SMS messages will be sent to selected or all alarm numbers specified by the user.		
VlozPlan=14:20,*,Stav			
Access Rights	Admin	License	Base

Command Nr.	37		
Text	ScheduleDel		
Function	It deletes an event for the Scheduler. Syntax is ScheduleDel=hh:mm Where hh means hours, mm means minutes.		
Settings with '?'	N/A		
ScheduleDel=10:31	It deletes a time schedule for 10:31 a.m.		
VymazPlan=10:31			
Access Rights	Admin	License	Base

Command Nr.	38		
Text	ScheduleDelAll		
Function	It deletes all events for the Scheduler.		
Settings with '?'	N/A		
ScheduleDelAll	It deletes all Scheduler records.		
VymazVsechnyPlany			
Access Rights	Admin	License	Base

Command Nr.	39		
Text	SchedulerList		
Function	It displays all added Scheduler records.		
Settings with '?'	N/A		
SchedulerList=1	It displays the Scheduler records starting from the first record.		
SeznamPlanu=1			
Access Rights	Admin	License	Base

Command Nr.	40		
Text	SchedulerOptions		
Function	It displays all potential Scheduler events that can be added into a time schedule. These events are the particular commands for controlling the device. In case of their modification the text of events will be also modified.		
Settings with '?'	N/A		
SchedulerOptions	Turnon,TurnOff,Restart,Status,GPRSStatus,SaveStatus		
Access Rights	Admin	License	Base

Command Nr.	41		
Text	DeviceName		
Function	It configures the device name which can be identified in this way via a Bluetooth terminal, and this name is also used in alarm SMS messages. The size is up to a maximum of 18 characters.		
Settings with '?'	Devicename=IQsocket		
DeviceName=NewName	<i>It configures a new device name to NewName</i>		
Access Rights	Admin	License	Base

Command Nr.	44		
Text	Counter		
Function	It displays the numbers of changes in inputs and outputs.		
Settings with '?'	N/A	N/A	
Counter=1	It displays the number of changes in the output1 – OUT1		
Counter=2	It displays the number of changes in the output2 – OUT2		
Counter=3	It displays the numbers of changes in a digital input DIN1 in case it is defined as digital.		
Counter=4	It displays the numbers of changes in a digital input DIN2 in case it is defined as digital.		
Counter=6	It displays the number of pressing the manual control push button.		
Counter=7	It displays the number of power failures.		
Counter=8	It displays the number of network failures.		
Counter=9	It displays the number of received SMS.		
Counter=10	It displays the number of declined SMS through security settings.		
Counter=11	It displays the number of processed SMS.		
Counter=12	It displays the number of sent SMS by device.		
Counter=13	It displays the numbers of all incoming calls.		
Counter=14	It displays the numbers of allowed incoming calls.		
Access Rights	Admin	License	Base

Command Nr.	45		
Text	DelCounter		
Function	It sets the numbers of changes in the particular counter to zero.		
Settings with '?'	N/A		
DelCounter=1	It deletes the numbers of changes in the output socket.		
DelCounter=X	It deletes the counter number X, see command number 44		
Access Rights	Admin	License	Base

Command Nr.	102		
Text	TriggerTime1		
Function	It configures the time in milliseconds that is the minimum for evaluating the digital input level DIN1 if configured. It is not recommended to be lower than 100ms because of interference from the GSM network. Range of 10 to 30000 ms.		
Settings with '?'	TriggerTime1 =100		
Change of settings	TriggerTime1 =100		
Access Rights	Admin	License	Base

Command Nr.	103		
Text	TriggerTime2		
Function	It configures the time in milliseconds that is the minimum for evaluating the digital input level DIN2 if configured. It is not recommended to be lower than 100ms because of interference from the GSM network. Range of 10 to 30000 ms.		
Settings with '?'	TriggerTime2 =100		
Change of settings	TriggerTime2 =100		
Access Rights	Admin	License	Base

Command Nr.	56		
Text	DAlarm1		
Function	It configures the digital input change monitor alarm. The universal input must be set as digital.		
Settings with '?'	DAlarm1=(No),Low,High,Both		
Dalarm1=Low	<i>It activates the alarm at the low level at the digital input GND, 0 volts.</i>		
Dalarm1=High			
Dalarm1=Both	<i>It activates the alarm at both levels.</i>		
Dalarm1=No	<i>It deactivates the digital input monitor alarm.</i>		
Access Rights	Admin	License	Base

Command Nr.	57		
Text	DAlarm2		
Function	It configures the digital input change monitor alarm. The universal input must be set as digital.		
Settings with '?'	DAlarm2=(No),Low,High,Both		
Dalarm2=Low	<i>It activates the alarm at the low level at the digital input GND, 0 volts.</i>		
Dalarm2=High	<i>It activates the alarm at the high level at the digital input of 2-30 volts.</i>		
Dalarm2=Both	<i>It activates the alarm at both levels.</i>		
Dalarm2=No	<i>It deactivates the digital input monitor alarm.</i>		
Access Rights	Admin	License	Base

Command Nr.	61		
Text	PwrAlarm		
Function	It configures the power failure and power recovery monitoring alarm.		
Settings with '?'	PwrAlarm=(No),Yes		
Pwrpalarm=Yes	<i>It activates the power failure and power recovery alarm.</i>		
Pwrpalarm=No	<i>It deactivates the alarm.</i>		
Access Rights	Admin	License	Base

Command Nr.	62		
Text	AddAlarmNumber		
Function	It adds the number to which an alarm alert should be sent. There can be up to a maximum of 12 alarm numbers.		
Settings with '?'	N/A		
AddAlarmnuber=042123456789,S,*	<i>It adds the number 42123456789 to which an alarm alert should be sent in the form of SMS message; each alarm event will be sent to this number (character *). The character * can be replaced with the given alarm number and each alarm number can be assigned to another alarm.</i>		
AddAlarmnuber=042123456789,C,1	<i>It adds the number 042123456789 to make a call only in case of a power recovery - character 1, if this alarm is activated.</i>		
Access Rights	Admin	License	Base



Meaning of alarms.

* - Each alarm event causes notifications to be sent via SMS or calling.

1 - **Power recovery alarm**

2 - **Power failure alarm**

3 - **GSM jamming alarm**

4 - **Reaching the lower level at the digital input1 IN1 , GND, 0 volts, alarm**

5 - **Reaching the upper level at the digital input1 IN1 , 2-30 volts, alarm**

6 - **Reaching the lower level at the digital input1 IN2 , GND, 0 volts, alarm**

7 - **Reaching the upper level at the digital input1 IN2 , 2-30 volts, alarm**

8 - **Reaching the counts of counter1 at the digital input1 IN1 , alarm**

9 - **Reaching the counts of counter2 at the digital input2 IN2 , alarm**

Any other values are ignored. 1- is the highest priority.

Command Nr.	63		
Text	DelAlarmNumber		
Function	It deletes the alarm number.		
Settings with '?'	N/A	N/A	
DelAlarmNumber= 42123456789	It deletes the number 42123456789 from the list.		
Access Rights	Admin	License	Base

Command Nr.	64		
Text	DelAllAlarmNum		
Function	It deletes all alarm numbers from the list.		
Settings with '?'	N/A		
DelAllAlarmNum	It deletes all numbers from the list.		
Access Rights	Admin	License	Base

Command Nr.	65		
Text	ListAlarmNum		
Function	It displays all added numbers for alarms, or: no record.		
Settings with '?'	N/A		
ListAlarmNum	<i>It displays added numbers, including events.</i>		
Access Rights	Admin	License	Base

Command Nr.	66		
Text	AlarmQueue		
Function	Here it is configured whether alarms will be sent to all defined numbers, or whether no other potential alarm numbers will be activated after answering the call in case of calling. Answering the call, neither denying the call, is considered to be activation.		
Settings with '?'	AlarmQueue=(Always), Terminate		
AlarmQueue=Always	<i>In case of an alarm event, a SMS message is always sent/a call is always made to all added numbers for selected alarm event.</i>		
AlarmQueue=Terminate	<i>In case of an alarm event, a SMS message is sent/a call is made to all added numbers for selected alarm event In case of calling and answering the call by the user, no SMS message will be sent/no more calls will be made to another alarm number for the particular alarm event.</i>		
Access Rights	Admin	License	Base

Command Nr.	67		
Text	StopAllAlarms		
Function	If the command is sent once, it will temporarily stop all alarms, after reboot/restart of the device the alarms selected by the user will be activated and the user will be notified of this by SMS. If the command is sent again, all active alarms will be stopped permanently.		
Settings with '?'	N/A		
StopAllAlarms	<i>All alarms were stopped temporarily!</i>		
StopAllAlarms	<i>All alarms were stopped permanently!</i>		
Access Rights	Admin	License	Base

Command Nr.	68		
Text	JammAlarm		
Function	It configures the GSM jamming monitoring alarm. A SMS message will be sent after the connection has been restored, in such a way as in case of the other alarms. The device will send SMS information whether jamming comes from a GSM jammer, or is caused by increased noise.		
Settings with '?'	JammAlarm=(No),Yes		
JammAlarm=Yes	<i>It activates the GSM jamming alarm.</i>		
JammAlarm=Yes	<i>It deactivates the alarm.</i>		
Access Rights	Admin	License	Base

Command Nr.	88		
Text	Version		
Function	It displays the current internal software version of the device.		
Settings with '?'	N/A		
Version	<i>Ver. 1.0.0</i>		
Access Rights	Admin	License	Base

Command Nr.	89		
Text	PINLimitsIVR		
Function	A number of wrong pins entered for the voice selfservice. If this number has been set and exceeded, the user will be notified by voice that the limit has been exceeded. It is set to zero every day at 0:00, or by reboot/restart of the device. Range of 0 up to 20. 0 is set for unlimited tries.		
Settings with '?'	PINLimitsIVR =0		
PINLimitsIVR=0	Unlimited number of wrong pins entered.		
PINLimitsIVR=3	A number of wrong pins entered one after another - 3.		
Access Rights	Admin	License	Base

Command Nr.	90		
Text	PINLimitsBT		
Function	A number of wrong pins entered for the IQcontrol terminal via Bluetooth. If this number has been set and exceeded, the user will be notified by voice that the limit has been exceeded. It is set to zero every day at 0:00, or by reboot/restart of the device. Range of 0 up to 20.		
Settings with '?'	PINLimitsBT=0		
PINLimitsBT=0	Unlimited number of wrong pins entered.		
PINLimitsBT=3	A number of wrong pins entered one after another - 3.		
Access Rights	Admin	License	Base

Command Nr.	91		
Text	UserTypeIVR		
Function	It configures a range of the voice selfservice.		
Settings with '?'	UserTypeIVR=(Long),Short		
UserTypeIVR=Short	After the correct PIN has been entered in the voice selfservice, the output1 – OUT1 will be restarted and then the call will be hung up.		
UserTypeIVR=Long	After the correct PIN has been entered in the voice selfservice, the full menu will be offered to the user.		
Access Rights	Admin	License	Base

Command Nr.	92		
Text	AllLogs		
Function	It displays the last 250(max) records of all event types.		
Settings with '?'	N/A		
AllLogs=1	It provides a list of events starting from the first record.		
Access Rights	Admin	License	Base

Command Nr.	93		
Text	SystemLog		
Function	It displays the last 250(max) records of system events log.		
Settings with '?'	N/A		
SystemLog=1	It provides a list of system events starting from the first record.		
Access Rights	Admin	License	Base



System events can be the following:

Power lost
 Power refresh
 Firmware upgrade
 IVR uploaded
 Configuration uploaded
 Commands uploaded
 Manual button used
 Scheduler event: Status
 SMS limit over
 Event
 Disconnect from Network
 Set to default
 GSM jamming by GSM Jammer

Each record also contains the current time when the event occurred.
 Any of these texts can be customized by the user.

Command Nr.	94		
Text	ControlLog		
Function	It displays the last 250(max) device control log records.		
Settings with '?'	N/A		
ControlLog=1	It provides a list of device control events starting from the first record.		
Access Rights	Admin	License	Base



Control events can be the following:

Call from (ANSWERED): 420123456789, Restart
 Call from (NO CARRIER) : ? , NoAction, ? means an unlisted number
 Call denied: 420123456789
 SMS Denied: 420123456789

Furthermore all incoming SMS notifications of control commands for the SMS scheduler.

Each log record also contains the current time when the event occurred.
 Any of these texts can be customized by the user.

Command Nr.	95		
Text	ConfigLog		
Function	It displays the last 250(max) device configuration event log records.		
Settings with '?'	N/A		
ConfigLog=1	It provides a list of the device configuration event log records starting from the first record.		
Access Rights	Admin	License	Base



Configuration events are all SMS messages intended to configure the device.

Each log record also contains the current time when the event occurred.

Command Nr.	99		
Text	Default		
Function	Factory default settings.		
Settings with '?'	N/A		
Default=321563254567895	The device will be set to default after a correct IMEI number has been entered.		
Access Rights	Admin	License	Base

Command Nr.	46		
Text	GPRS		
Function	Activation of sending the device status by GPRS.		
Settings with '?'	GPRS=(No),UDP,TCP		
GPRS=No	<i>GPRS is not active.</i>		
GPRS=UDP	<i>A SMS message on GPRS status will be sent by UDP protocol.</i>		
GPRS =TCP	<i>A SMS message on GPRS status will be sent by TCP protocol.</i>		
Access Rights	Admin	License	Base

Command Nr.	47		
Text	GPRSAPN		
Function	A name of internet access point.		
Settings with '?'	GPRSAPN=internet		
GPRSHOST=111.22.33.44	<i>Adding of the access point name.</i>		
Access Rights	Admin	License	Base

Command Nr.	48		
Text	GPRSHOST		
Function	A destination IP address or a domain name to which data will be sent.		
Settings with '?'	GPRSHOST=www.domai n.com		
GPRSHOST=111.22.33.44	<i>Adding of the destination IP address.</i>		
Access Rights	Admin	License	Base

Command Nr.	49		
Text	GPRSPORT	GPRSPORT	
Function	Target port for GPRS connection.		
Settings with '?'	GPRSPORT=0	GPRSHOST=0	
GPRSPORT=40000	<i>Adding of cport for GPRS connection.</i>		
Access Rights	Admin	License	Base

Command Nr.	105		
Text	CntDiv1		
Function	A divisive constant (conversion factor) for impulse counting of DIN1 input. After the number of this constant has been reached, the final impulse counter will be increased by 1. Allowed range is 1 to 30000.		
Settings with '?'	CntDiv1=0		
CntDiv1=1000	<i>The counter value will be increased by 1 after reaching a thousand impulses.</i>		
Access Rights	Admin	License	Base

Command Nr.	106		
Text	CntDiv2		
Function	A divisive constant (conversion factor) for impulse counting of DIN2 input. After the number of this constant has been reached, the final impulse counter will be increased by 1. Allowed range is 1 to 30000.		
Settings with '?'	CntDiv2=0		
CntDiv2=1000	<i>The counter value will be increased by 1 after reaching a thousand impulses.</i>		
Access Rights	Admin	License	Base

Command Nr.	108		
Text	NextTime1		
Function	Time of the next test at the digital input1 DIN1, if the alarm has been activated, range 0 to 3600 seconds.		
Settings with '?'	NextTime1=0		
NextTime1=60	<i>A digital input test will be postponed by 60 seconds.</i>		
Access Rights	Admin	License	Base

Command Nr.	109		
Text	NextTime2		
Function	Time of the next test at the digital input1 DIN2, if the alarm has been activated, range 0 to 3600 seconds.		
Settings with '?'	NextTime2=0		
NextTime2=60	<i>A digital input test will be postponed by 60 seconds.</i>		
Access Rights	Admin	License	Base

Command Nr.	111		
Text	SeparApply		
Function	Text from internet gateway between separators will be applied to all commands		
Settings with '?'	SeparApply=(No),Yes		
SeparApply=No	<i>It deactivates the separators for SMS.</i>		
SeparApply =Yes	<i>It activates the separators for SMS.</i>		
Práva	Admin	License	Base

Command Nr.	112		
Text	Separators		
Function	Configuration of starting and ending separators. A text in an incoming SMS message will be separated from the message, and for subsequent processing only the text between these separators will be used. If these separators are not found in the SMS message, the message will be ignored. It is applicable e.g. for GOOGLE Calendar and other Internet SMS gateways.		
Settings with '?'	Separators=.		
Separators=;*	The following characters will be used as separators: ; for the start and * for the end of the text.		
Access Rights	Admin	License	Base

Command Nr.	113		
Text	Bluetooth		
Function	Activation and deactivation of the Bluetooth interface used for wireless configuration by the IQcontrol terminal (Windows/Android/IOS). Reboot is needed for activate.		
Settings with '?'	Bluetooth=No,(Yes)		
Bluetooth =Yes	<i>It activates the Bluetooth interface.</i>		
Bluetooth =Yes	<i>It deactivates the Bluetooth interface.</i>		
Access Rights	Admin	License	Base

Command Nr.	114		
Text	License		
Function	It adds a license key to unblock the licensed commands and functions. The license is not transferable.		
Settings with '?'	License=Base		
License=0154asdf524sf 1df524f24f4dfg24g5sdg	<i>It activates the license.</i>		
Access Rights	Admin	License	Base

Command Nr.	115		
Text	IMEI	IMEI	
Function	It sends back the IMEI device number.		
Settings with '?'	N/A	N/A	
IMEI	<i>IMEI 251236598745125</i>		
IMEI			
Access Rights	Admin	License	Base

Command Nr.	116		
Text	IVRSoundDelay		
Function	Delay in playing the individual menus in the voice selfservice centre, interval of 0 to 10 seconds.		
Settings with '?'	IVRSoundDelay=2		
IVRSoundDelay=0	<i>Sounds are played immediately.</i>		
Access Rights	Admin	License	Base

8. Control by IQcontrol Suite for WINDOWS

For a maximum comfort and easy operation, a program package IQcontrol Suite for WINDOWS has been developed. You can start to use IQcontrol Suite after its downloading from the source www.iqtronic.com/download and its installation. A Bluetooth adapter is necessary only for communication with the device. It is not required for making a list of authorised numbers, developing your own voice selfservice centre and your own texts of commands, responses and other texts in the device.

After correct installation the following icon (selected as standard) will be displayed on the desktop:



After clicking on this icon the IQcontrol Suite programs folder will start up:



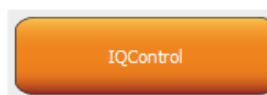
IQcontrol – required BT interface, serves as a terminal for configuration and control of the device in a wireless way, free of charge – without SMS.

Commands Editor - program to edit and write your own commands/responses and auxiliary texts in the device.

Numbers Editor – used to edit and add authorized numbers.

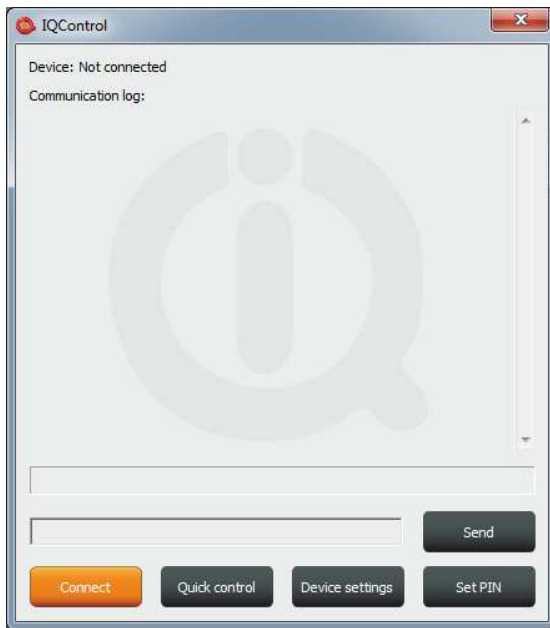
IVR Completor – Creating your own voice selfservice.

IQControl subprogram



Comprehensive, but very intuitive, software out of IQcontrol Suite package, serving mainly as a terminal for controlling the device wirelessly via Bluetooth.

It consists of quick control buttons, data upload/download in/from the device tab and of the PIN set button for access via BT. This chapter provides a detailed description of these buttons. The following description applies to a pre-defined set of English commands; if you choose to upload a set of commands in another language, then commands and responses will be displayed in your chosen language.




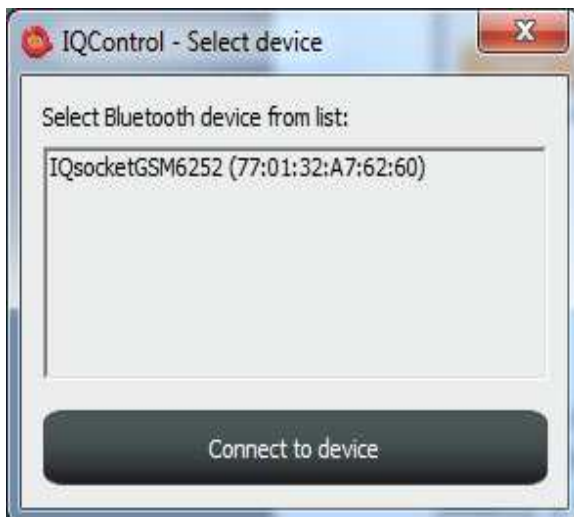
Device: Not connected, terminal is not connected to any device; if it is connected, the name of the device will be displayed (Devicename).

Communication log: All strings are listed in this window; you can easily scroll through log messages using the scroll bar.

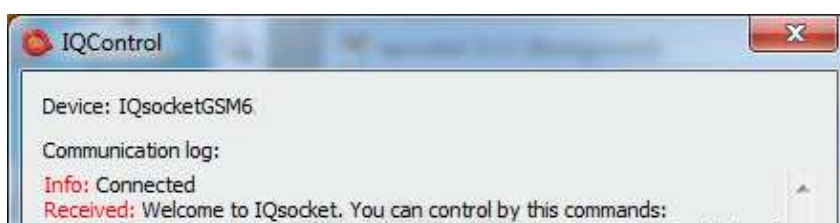
Clear
Save into file

If your mouse cursor is located in the IQcontrol program desktop, you can right-click to clear log messages (**Clear**), or to save them in a file (**Save into File**).

When clicking the  button a window appears in which there are displayed all searched devices with pre-defined device names (devicename).



Since all devices have been configured by factory default to have the identical name IQSocket, for a better orientation the last 4 digits from the device's IMEI are attached to this name. After you have clicked on your chosen device, you can click the orange button "Connect to device", and then you will be required to enter the security pin (set by the **BTPIN** command), which is "0000" as default.



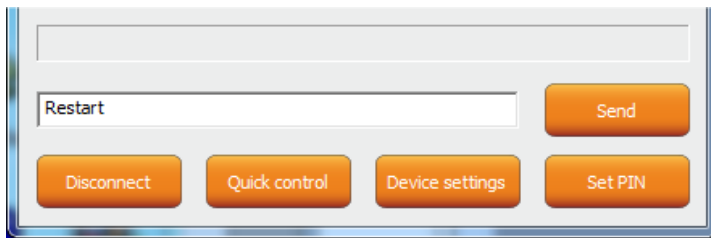
After the PIN has been accepted, connection with your chosen device will be activated. If you have been successfully logged in, the device will automatically display the welcome text and provide a list of control commands.

After 2 minutes of inactivity, the terminal will automatically disconnect, and you will hear the sound of falling cartridge. In case of a failure, when the following message will appear: **Info:** Can not connect to Bluetooth device, please repeat the procedure, check whether the device has not been turned off, restart a BT adapter and run again the IQcontrol application. If the adapter has not been connected/installed, the following message will appear: **Info:** Can not find Bluetooth adapter.

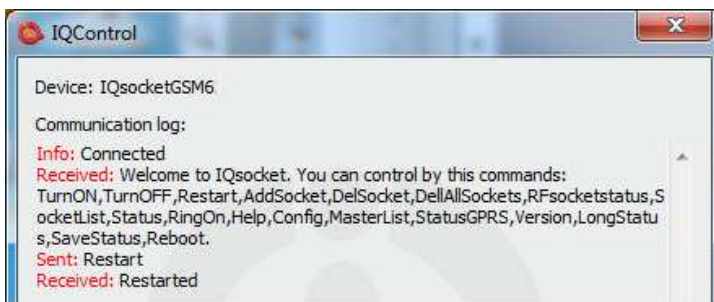
All software buttons will be activated.

You can control the device using commands which you are required to enter in the text window (here e.g. the command for restart of the socket) and send them by this button:





If the command is correct, then the device will perform the given action and give back a response (in this example: Restarted.)

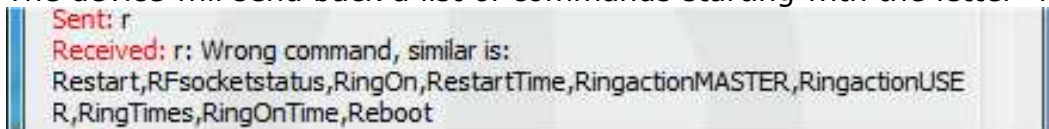


Now, we show you the speciality of internal parser processing.

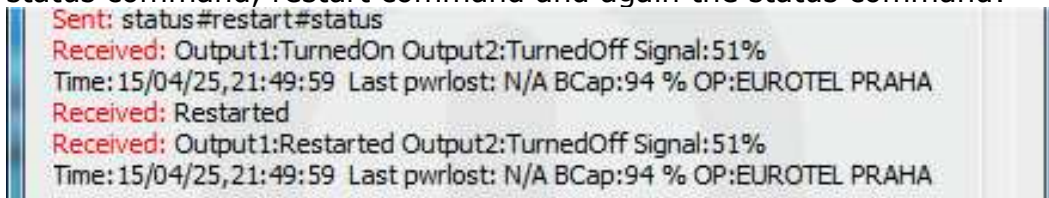
We assume that the user does not know commands and in case of control by SMS no welcome SMS how to control the device is available. However, he/she remembers vaguely that the command starts with the letter "R".

He/she will send only the letter "R".

The device will send back a list of commands starting with the letter "R":



We have made a further strong simplification, namely sending a full range of commands in one SMS message up to the size of SMS, i.e. 160 characters. Commands must be separated by the symbol "#"; here, as an example, we send the status command, restart command and again the status command:



One response/SMS message is sent to each command (according to the size of response there can be also more SMS messages).

In case of an incorrect parameter (parameter command with the symbol =) or the parameter value is out of limit, the device will send a response on an error parameter (text of the command is correct) and/or incorrect limits; here e.g. the **RestartTime** command:

```
Sent: config
Received:
Inputtype,RestartTime,RingactionMASTER,RingactionUSER,NCactionMASTER,NC
actionUSER,AddMaster,Adduser,DelUser,DelAllUsers,UserList,UserAList,RingTi
mes,RingOnTime,MaxSMS,Output,MasterPINSet,MasterPIN,UserPINSet,UserPI
N,BTPIN,PINIVR,ScheduleAdd,ScheduleDel,ScheduleDelAll,SchedulerLIST,Sche
dulerOptions,DeviceName,Inputunit,Counter,DelCounter,Triggertime1,Voltalarm
,VLevelMin,VLevelMax,PulseAlarm,MinPulses,MaxPulses,TAlarm,TempAlarm,Pwr
Alarm,AddAlarmNumber,DelAlarmNumber,DelAllAlarmNum,ListAlarmNum,Alarmqu
eue,StopAllAlarms,JammAlarm,Tp1Max,Tp1Min,Tp2Max,Tp2Min,Tp3Max,Tp3Min
,Tp4Max,Tp4Min,Tp5Max,Tp5Min,Tp6Max,Tp6Min,Tp7Max,Tp7Min,Tp8Max,.....
.....
Sent: restarttime=600
Received: restarttime=600 - parameter is out of limit!
Sent: restarttime
Received: restarttime Incorrect parameters, please check the command and try
again.
```

If you wish to know the correct limits without using the user guide, you can use the HELP=RestartTime command.


```
Sent: help=restarttime
Received: RestartTime - User defined time from reswitch output 1-300 seconds.
```



*Note...

Neither the system time nor the signal quality are updated in case of the IQcontrol terminal connection via Bluetooth.

Quick Control Buttons



The program includes the quick control features in order to control commands in a simple and fast way.

After clicking "Quick control", there will appear four buttons with the most used commands: TurnOn/Zapni, TurnOff/Vypni, Status/Stav, Restart/Restart; after just clicking one of the above-mentioned, the particular command will be sent to the device.



You can customize text of any command by using a right-click. Click the X button to close the Quick Control window and you will get back to the IQ control main menu.

ButtonSet PIN

It allows the user to set a PIN code that will be saved and used for next login.

ButtonDevice settings

After a click, a window with push buttons which have an important function will open.



Upgrading the internal firmware.

Uploading a new voice selfservice file into the device.

Uploading a set of user numbers into the device. It is necessary to have **Full license!**

Uploading the device configuration file.

Downloading the configuration from the device into the file.

Uploading commands/responses, e.g. another language; for own set of commands it is necessary to have **Full license!**

Downloading commands from the device into the file.

Downloading all log events from the device's internal log into a text file.

In case of uploading the security list into the device, you can upload a text file generated by using either the **Numbers Editor**, a part of IQcontrol Suite software, or generated by the user himself/herself.

It is a common text file in which each number is added into one individual line and without spaces. The file must have a file extension ***.sec**

Here's an example of the modified file "mynumbers.sec":

420123456789,alias2

420111111111

420123333333,alias3

Syntax is identical to the SMS command **AddUserNumber/VlozCisloUzivatele**.

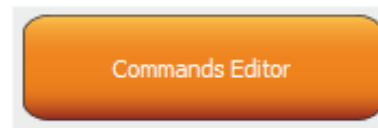
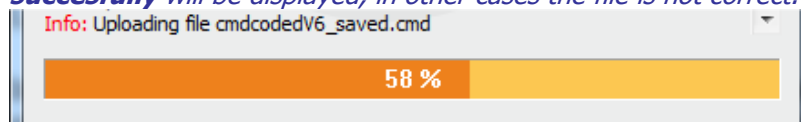
If a line is not entered correctly, it will be ignored and the number will not be uploaded.



Note...

The transfer speed is 115200 bps.

*It can take several minutes to upload larger files e.g. IVR. The status of the upload is indicated by a progress bar, and if the file has been successfully uploaded, the text **successfully** will be displayed, in other cases the file is not correct.*



8.2 Commands editor subprogram

It is the most interesting subprogram which allows the user to edit not only any text in the device, i.e. text of commands and responses to them, but also the texts that are recorded in the internal log of the device, texts of alarms and in case of responses the syntax and configuration location as well. You can draw up your own response to the **STATUS/STAV** command including all device parameters.

You can also modify the authorisation of the Admin/User commands.

To modify the above-mentioned, first of all, you need to get source data, which can be downloaded by using the **Device settings** button described above, then the Download Commands button, and the file name can be e.g. test1.cmd.



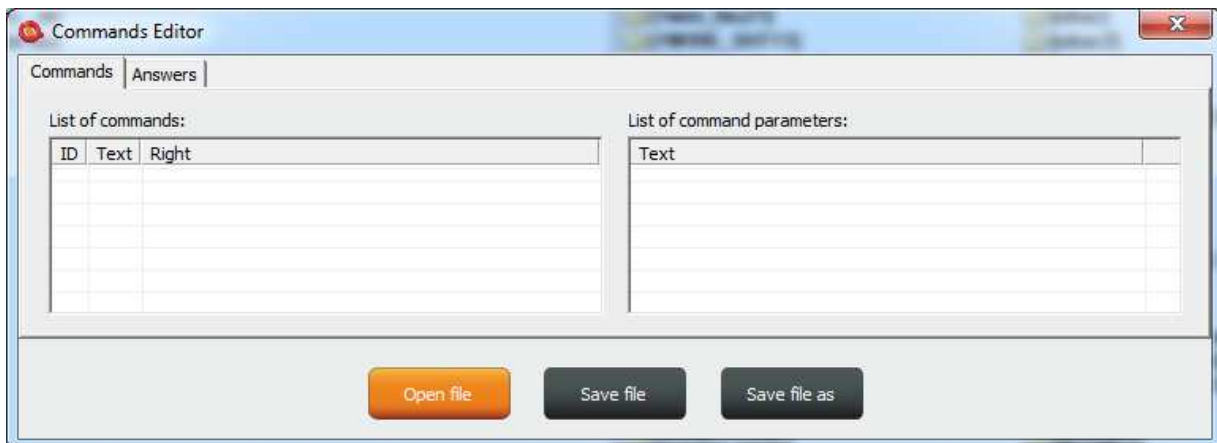
If downloading from the device, only the number of packets will be displayed, because files are short, and so transfer takes a few seconds.

You can open the downloaded file in the Commands Editor.



Note...

It is necessary to have activated the FULL license.



If you wish to read the file, use the Open File button and upload the file test1.cmd. If the file is correct, it will be displayed, in other cases an error message will appear. The software is made again very intuitive, the **Commands - příkazy** tab consists of two windows: **List of commands**, where control commands are displayed, and **List of command parameters**, where potential command parameters are displayed, those that are selected by the symbol "=". You can change only single texts, it is not possible to add or delete commands. After the file has been uploaded, the commands will be displayed and arranged in the table according to their number. If you wish to modify a command, click the given command and edit it, and the change will be made after clicking **ENTER** button.

Commands Answers		
List of commands:		
ID	Text	Right
	TurnON	U
2	TurnON1	U
3	TurnON2	U
4	TurnOFF	U
5	TurnOFF1	U

Commands Answers		
List of commands:		
ID	Text	Right
1	Zapni	U
2	TurnON1	U
3	TurnON2	U
4	TurnOFF	U

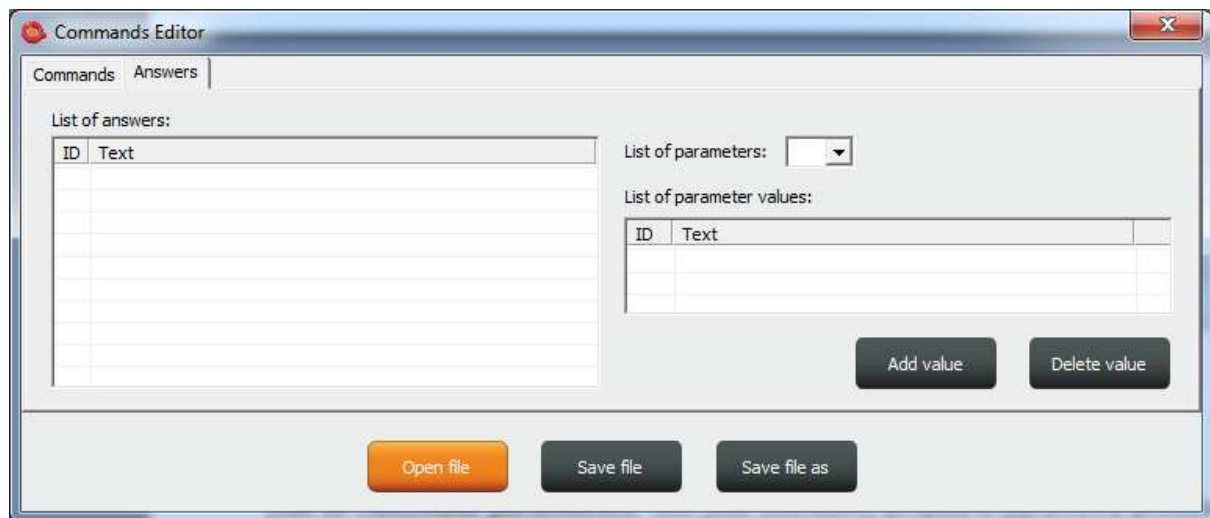
If you select the command containing text parameters, for example temperature units **InputUnit**, the text of parameters will be displayed in the right window, and these parameters can also be modified.

List of commands:			List of command parameters:
ID	Text	Right	Text
41	DeviceName	A	C
42	StatusGPRS	U	F
43	Inputunit	A	
44	Counter	A	

The column **Right** means access rights, if **A** - Admin is assigned, only the Administrator is allowed to use the commands, in case this number has been selected, if not, then any user can use them.

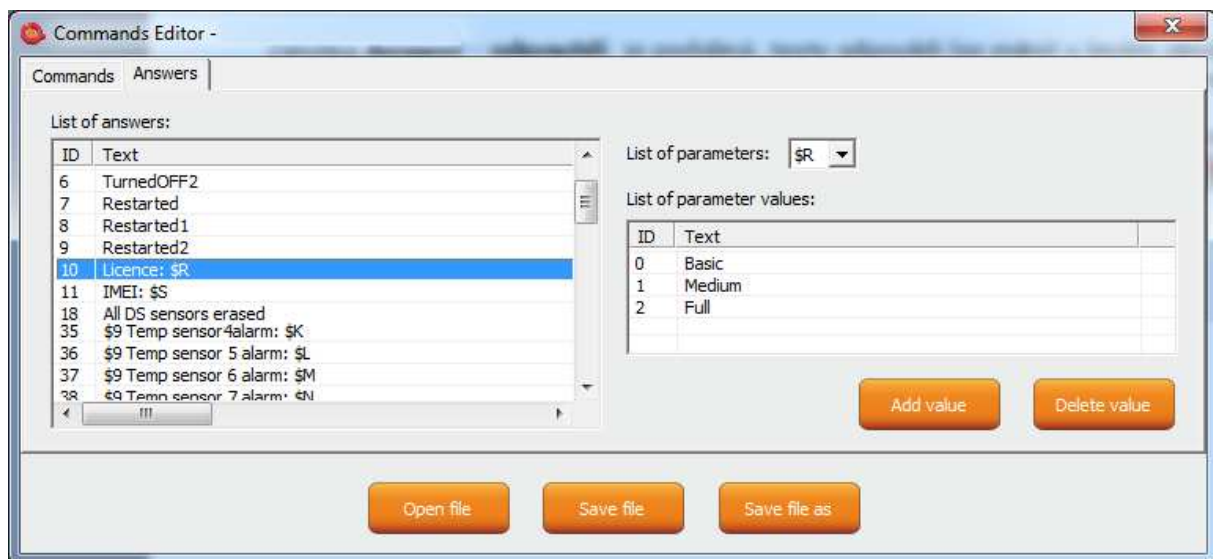
The symbol "**U**" means users, if these are set as authorised user numbers. It is possible to edit them and specify which commands will be made available to users.

The **Answers** tab is similar, texts of responses can be modified in the left window **List of answers**, and parameters, if existing, will be displayed in the right window. You can delete, edit and add new parameters. You may also edit answers provided by the intelligent help, but it is not recommended to do that, since this would result in chaos in the file.



ID	Text

ID	Text



ID	Text
6	TurnedOFF2
7	Restarted
8	Restarted1
9	Restarted2
10	Licence: \$R
11	IMEI: \$S
18	All DS sensors erased
35	\$9 Temp sensor 4 alarm: \$K
36	\$9 Temp sensor 5 alarm: \$L
37	\$9 Temp sensor 6 alarm: \$M
38	\$9 Temp sensor 7 alarm: \$N

ID	Text
0	Basic
1	Medium
2	Full

Parameter in the response is always indicated by the symbol \$ and the following symbols 0-9,A-Z, which can be modified manually. Here, this is an example of editing the response to the command "License: \$R".

"\$R" is fixed parameter of the device response, instead of which internal device parser will add a numerical value. However, if a text equivalent for the given number has been defined in the left window, then the selected text will appear instead.

Therefore, the answer can be "License: Basi or "License: Full".

For each **numerical** parameter in any answer, a text equivalent, that will be displayed instead of this numerical value, can be assigned.

The **List of parameters** option presents valid parameters for answers in the right window.

If a parameter does not exist, the device will insert the text UDEF (undefined).

If a text equivalent is out of limit, the device will add N/A (not applicable).

The following is the specification and meaning of the applicable parameters:

\$1	- Output1 status , 1 and 2 (restarted)	; numerical parameter
\$2	- Output2 status , 1 and 2 (restarted)	; numerical parameter
\$3	- Digital input DIN1 status 0 and 1	; numerical parameter
\$4	- Digital input DIN2 status 0 and 1	; numerical parameter
\$7	- Signal, numerical 0 up to 100	; numerical parameter
\$8	- Last power lost time	; text parameter
\$9	- Device name	; text parameter
\$B	- System time	; text parameter
\$G	- Network operator	; text parameter
\$P	- Jamming Detected 1 and 2	; numerical parameter
\$R	- License 0, 1 and 2	; numerical parameter
\$S	- IMEI	; text parameter
\$T	- Hours counter	; text parameter

Example

In order to make a simple response to the **STATUS/STAV** command with only one parameter about the output socket status, we can edit a text on the position ID54 in the **List of answers** window to "Output socket status: \$1".

This parameter can only have the following values: 0 – turned off, 1 – turned on, 2 – restarted.

If we do not insert text aliases, the following response will be sent back:

Output socket status: 0

Then we add text aliases into the right window by using the button:

Add value

The result will be as follows

List of answers:		List of parameters:	List of parameter values:	
ID	Text		ID	Text
54	Stav vystupni zasuvky: \$1	\$1	0	Vypnuta
55	Counter has been cleared		1	Zapnuta
57	This command is not recognised.		2	Restartovana
58	-No record			
59	No number was inserted			
60	No number was deleted			
61	Full Memory!			

And the device will send back a response with the substituted text: **Output socket status: Turned off.**

We will save the final file into a PC and upload it by using the **Upload Commands** button as described above. After a restart, the device will then operate with new commands.

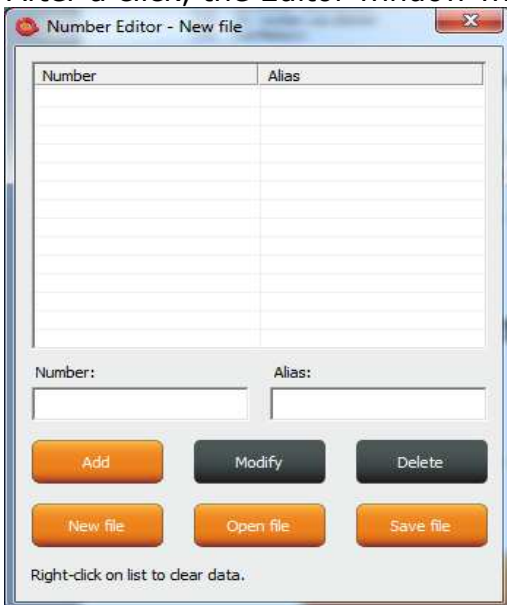
8.3 Numbers Editor Subprogram



A software for making lists of user numbers to be used for authorization, security. The user can make such a file manually using a text editor.

For instance, as said above, if the user does not want to risk mistakes when making a list, then this subprogram for making lists and editing provides a full comfort to the user.

After a click, the Editor window will be displayed:



Number is designed to enter a user's telephone number, **Alias** is optional and is used for a better orientation in the user numbers.

Add button, after a click, the syntax will be checked, and if it is correct, the given number will be added into the list. You can upload up to 1000 numbers into the device; subsequent numbers will be ignored.

Modify button, after a click in the line with a number and then clicking the Modify button, it will be activated and displayed orange and you can edit the record.

Delete button will delete the given number from the list.

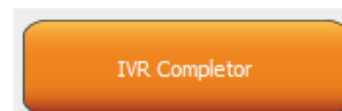
New file – it will save it as a new file with a new name.

Open file – it will open the existing file.

Save file – it will save the opened file with the identical name.

The file will have a file extension *.sec and then you can upload the file into the

8.4 IVR Completor subprogram



By using this subprogram, the user can create an own voice help.

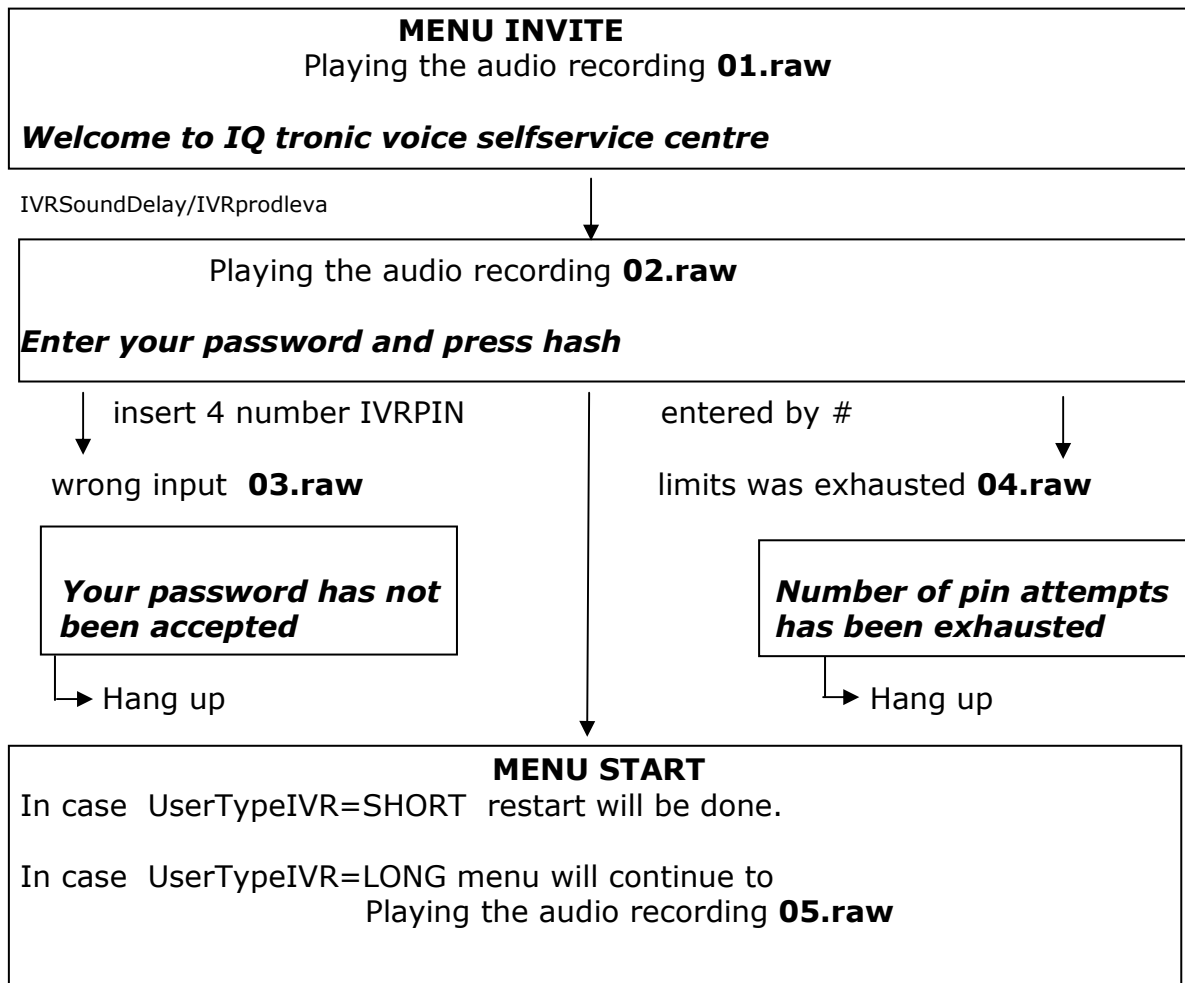
It is a simple subprogram that can complete individual audio recordings into a file that is to be uploaded into the device. You are required to record sounds either by means of a professional sound studio, doing your own sampling, or by using a voice synthesizer.

Here you can see the structure applied for voice control.

1. After an action to an incoming call to IVR (Interactive Voice Response) has been configured, the device will answer this call and start to play gradually audio

recordings; it is required that recordings are numbered correctly from 01.raw up to xx.raw. The format of recordings is RAW (i.e. uncompressed data with no header information) MONO, 8 bits and sampling frequency of 11 025Hz, i.e. 11KHz. It is important that you do not forget to use the digit "0" before digits "1" to "9", and hence 01.raw is the number of the first recording.

And now, the structure of IVR menu will be described below in order to understand interaction.



MENU START

To controll this device, press one -> MENU CONTROL

IVRSoundDelay

Playing the audio recording **06.raw**

To get status of this device, press two-> MENU STATUS

IVRSoundDelay

Playing the audio recording **07.raw**

To setup security settings, press three -> MENU SECURITY

IVRSoundDelay

Playing the audio recording **08.raw**

To send controll commands to your number by SMS, press four -> MENU SMSHELP

IVRSoundDelay

Playing the audio recording **09.raw**

To send status of device to your number, press five -> MENU SMSSTATUS

IVRSoundDelay

Playing the audio recording **10.raw**

To end this session, press hash or end call

MENU CONTROL

IVRSoundDelay

Playing the audio recording **11.raw**

Device output is

play sound **12.raw**

or

13.raw

Turned on

Turned off

IVRSoundDelay

Playing the audio recording **14.raw**

To turn off, press zero

IVRSoundDelay

Playing the audio recording **15.raw**

To turn on, press one

IVRSoundDelay

Playing the audio recording **16.raw**

To return to main menu, press hash

-> MENU START

MENU STATUS

IVRSoundDelay
Playing the audio recording **11.raw**

Device output is

Playing the audio recording **12.raw** or Playing the audio recording **13.raw**

Turned on

Automatically return to **MENU START**

Turned off

MENU SMSHELP

IVRSoundDelay
Playing the audio recording **17.raw**

SMS will be sent after end of this session

Auto return to **MENU START**

MENU SMSSTATUS

IVRSoundDelay
Playing the audio recording **17.raw**

SMS will be sent after end of this session

Return to **MENU START**

MENU SECURITY

IVRSoundDelay
Playing the audio recording **18.raw**

To change your password, press one

-> MENU PASSWORD

IVRSoundDelay
Playing the audio recording **19.raw**

To change list of authorized numbers, press two

-> MENU NUMBER

IVRSoundDelay
Playing the audio recording **16.raw**

To return to main menu, press hash

-> MENU START

MENU PASSWORD

IVRSoundDelay

Playing the audio recording **20.raw**

Your password is: PIN is playing

IVRSoundDelay

Playing the audio recording **21.raw**

Enter your new password and press hash

waiting for new pin insert and confirmation by #

IVRSoundDelay

Playing the audio recording **22.raw**

Your new password is: new PIN is playing

MENU PASSWORD

IVRSoundDelay

Playing the audio recording **23.raw**

**To confirm and return to main menu, press hash, to activate all passwords
press zero, to enter new value press star**

Key # will save entered PIN for IVRMENU only and skip to **MENU START**

Key 0 will save entered PIN for PINIVR,PINBT and USERPIN -> **MENU START**

Key * -> MENU PASSWORD

MENU NUMBER

IVRSoundDelay

Playing the audio recording **24.raw**

Enter new number and press hash

waiting for insert number and press #

IVRSoundDelay/IVRprodleva

Playing the audio recording **25.raw**

You have entered number

waiting for insert number and press #

IVRSoundDelay/IVRprodleva

Playing the audio recording **26.raw**

To setup administrator rights, press one

IVRSoundDelay/IVRprodleva

Playing the audio recording **27.raw**

To setup user rights, press two

IVRSoundDelay/IVRprodleva

Playing the audio recording **28.raw**

To delete from list, press three

MENU NUMBER

IVRSoundDelay/IVRprodleva

Playing the audio recording **29.raw**

To get type of rights, press four

IVRSoundDelay/IVRprodleva

Playing the audio recording **30.raw**

To delete all users, press eight

IVRSoundDelay/IVRprodleva

Playing the audio recording **31.raw**

To enter new value, press star

*** -> MENU NUMBER**

IVRSoundDelay/IVRprodleva

Playing the audio recording **16.raw**

To return to main menu, press hash

-> MENU START

Key 1 saves/overwrites the number as Administrator number and plays the sound file **32.raw**

Number has been saved

Key 2 saves the number as User number and plays the sound file **32.raw**

Number has been saved

*If the number cannot be saved, it plays the sound file **37.raw***

Number cannot be saved

Key 3 deletes the number from the list and plays the sound file **33.raw**

Number has been deleted

*If the number is not included in the list, it plays the sound file **36.raw***

Number is not in list

Key 4 finds out the rights of the given number and plays the sound files:

36.raw see above.

34.raw

Number have administrator rights

35.raw

Number have user right

Key 8 deletes all user numbers and plays the sound file **38.raw**

All numbers have been deleted

* File names for digits:

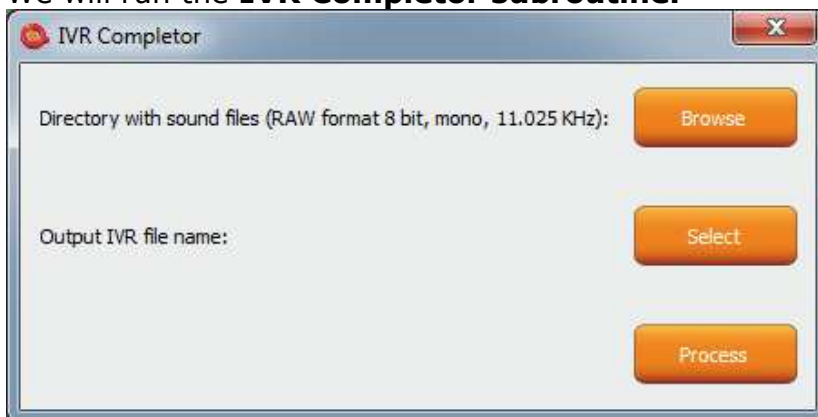
39.raw - 0 , zero	40.raw - 1 , one	41.raw - 2 , two
42.raw - 3 , three	43.raw - 4 , four	44.raw - 5 , five
45.raw - 6 , six	46.raw - 7 , seven	47.raw - 8 , eight
48.raw - 9 , nine		



Note...

In case of the **SHORT IVR** option – for instance for an intelligent door opener, you can record only a welcome text/melody and potential error messages. If some recordings are missing, the device will not play these, but voice selfservice will stay active. **SHORT IVR** option is active only for **USER** numbers, a full voice selfservice is always available to the **ADMINISTRATOR** number.

Accordingly, we have completed the files.
We will run the **IVR Completor subroutine**.



The **Browse** button – we select a folder in which the files are located.
The **Select** button – we select a location and name of the final file which always has an extension *.ivr.
By using the **Procces** button, the completion of the sound files will start.



Note...

The maximum size of all files cannot exceed 1,5Mbyte, when uploading a longer file, an error message will be displayed. No IVR file is uploaded into the device in factory default settings, in this case the device will not answer a call.

You can then upload the final file by using the **UPLOAD New IVR** button.
You are required to have the FULL license!

9. Control by IQcontrol Smart Application for OS Android

You can download the application from our site: www.iqtronic.com/download, or on the Google Play store, our company IQtronic technologies Europe s.r.o. offers the application FOR FREE.

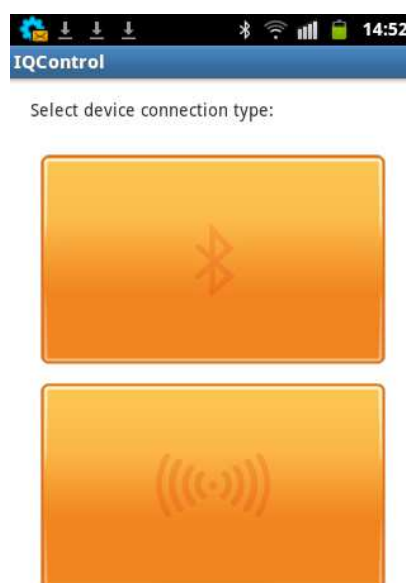
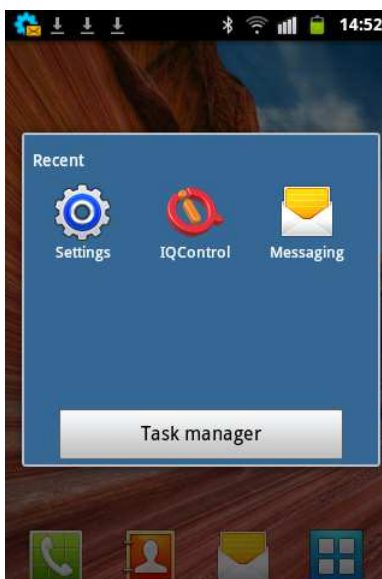
Or, you can use the QR code to download by means of your mobile phone; this QR code is also included in the label with the IMEI number on each device.

The software can be also used on the ANDROID tablets with a Bluetooth interface. Control by SMS messages will not be available; however, you are allowed to use a more comprehensive control via a Bluetooth terminal.



After the application has been successfully installed, you will find the following icon on your desktop:

Click that icon to launch the application.



The button with a Bluetooth logo is used to control the device via wireless Bluetooth interface that needs to be turned on in your mobile phone.

The button for control and configuration by SMS messages.



Note...

IQControl for OS Android software is identical to IQControl for OS Windows, except for missing control by SMS.

9.1 Control by SMS

Click this button:



Device: 705288436
Communication log:

Device: 705288436
Communication log:
Communication log

Device: 705288436
Communication log:
Sent: RESTART
Info: SMS enqueued into mobile phone
Received: Restarted

RESTART

Send

Set number

Quick control



Text to send

Send

Set number

Quick control

Text to send

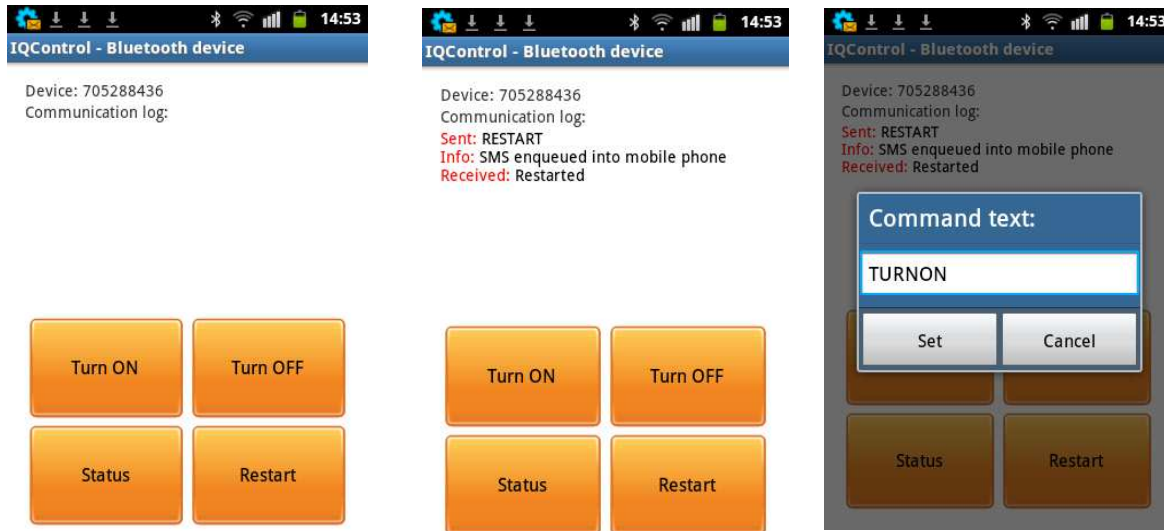
Send

Set number

Quick control

You enter the text of any command, e.g. **RESTART**, in the **Text to send** window. A SMS message will be sent and after receiving a response from the device it will be displayed in the Communication log window.

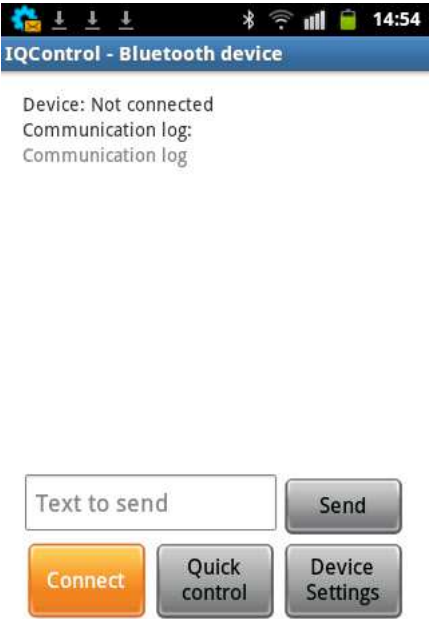

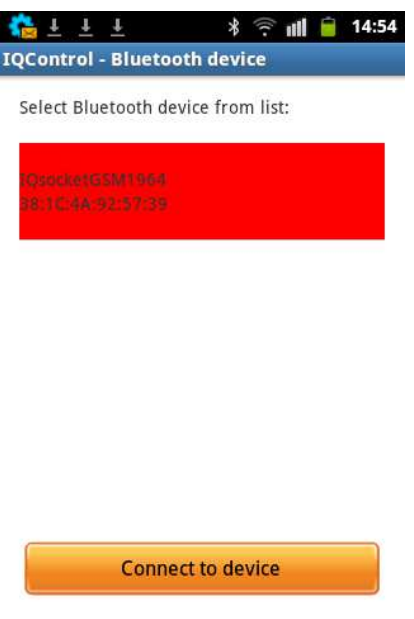
The **Quick Control** buttons are quick control keys, explained above in the IQControl Suite/IQcontrol software. They allow the users to make actions by a single click, and to edit received text by a long click.



9.2 Control by terminal via wireless Bluetooth connection

Click the buton

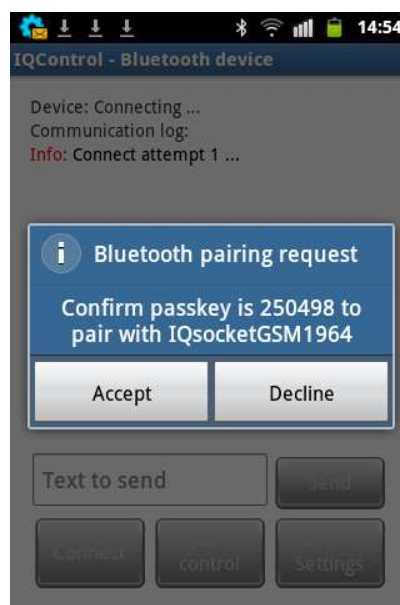


<p>After a communications terminal appears, click Connect.</p> 	<p>The following window displays the IQSocket device that has been found.</p> 	<p>Click the selected device and press the Connect to device buton.</p> 
---	--	--

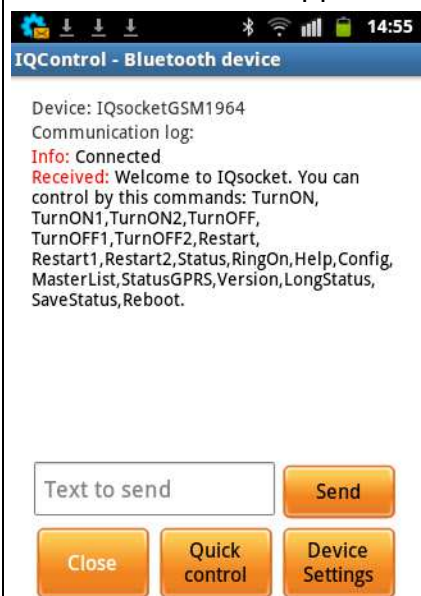
Enter the PIN code "0000" which is a factory default value



The following window will display a Bluetooth pairing request.

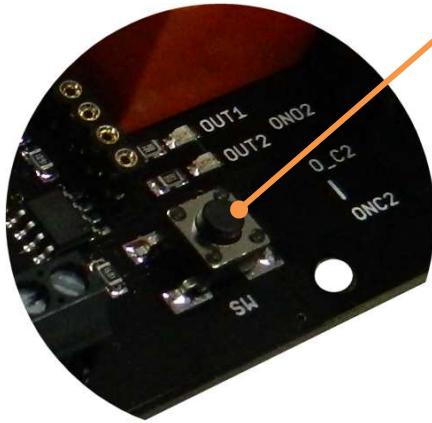


If the correct PIN has been entered, a communication window containing the welcome text will appear.



Further, control is the same as in IQControl software for OS Windows.

10. Meaning of integrated button



An integrated micro push button is located at the device, can be accessible directly by finger. It is named with the text "SW".

A short press of the push button results in the change of status of both outputs. After the push button has been pressed, the status of one of the outputs can be changed alternately.

11. Factory default settings

11.1 Manual configuration of factory default values

To restore the factory default configuration settings, push the button and hold it down for more than 5 seconds. Once you release the button, all LED indicators start blinking for a period of 10 seconds.

Pressing the button one more time will reset all device settings to their factory default values.



Note...

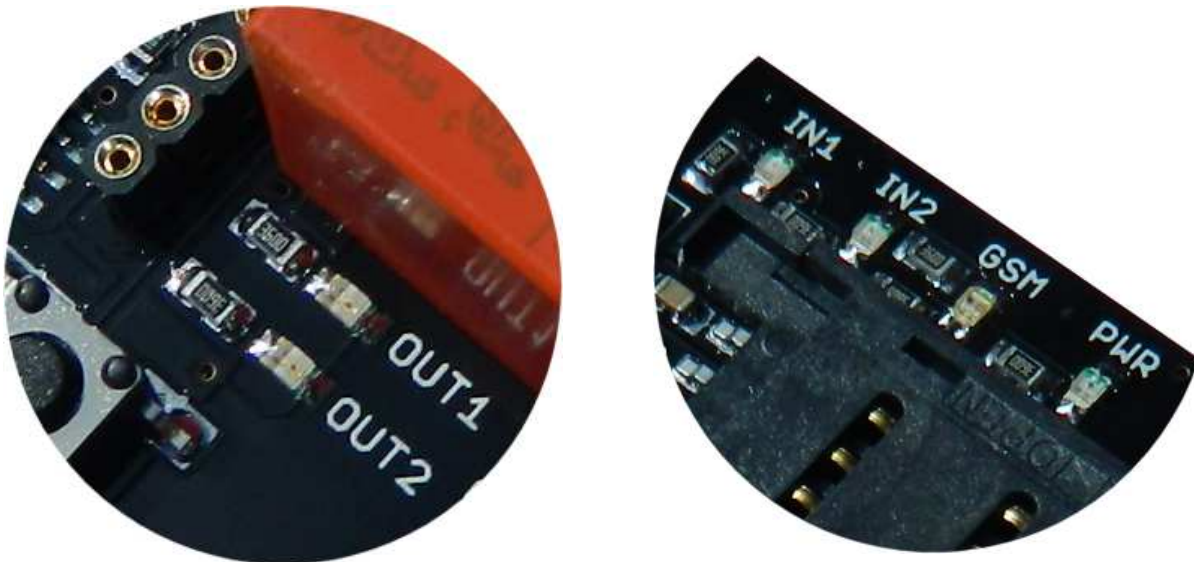
By this step you will not delete the activated sensors, LOG events, user numbers, uploaded set of commands and voice selfservice centre.

11.2. Factory default settings

SMS příkaz EN	Hodnota EN	License
LEDOption	DIn	Base
RestartTime	30	Base
RingActionAdmin	NoAction	Base
RingActionUser	NoAction	Base
NCActionAdmin	NoAction	Base
NCActionUser	NoAction	Base
RingTimes	1	Base
RingOnTime	15	Base
RingActionBlock	0	Base
SMSPerDay	50	Base
Output	Remember	Base
AdminPINSet	Off	Base
AdminPIN	0000	Base
UserPINSet	Off	Base
UserPIN	0000	Base
BTPIN	0000	Base
PINIVR	0000	Base
TriggerTime1	100	Base
TriggerTime2	100	Base
DAlarm1	No	Base
DAlarm2	No	Base
PwrAlarm	No	Base
AlarmQueue	Always	Base
JammAlarm	No	Base
PINLimitsIVR	0	Base
PINLimitsBT	0	Base
UserTypeIVR	Long	Base
GRPS	No	Base
GPRSHOST	www.domain.com	Base
GPRSPORT	0	Base
CntDiv1	1	Base
CntDiv2	1	Base
NextTime1	0	Base
NextTime2	0	Base
Separators	∴	Base
SeparApply	No	Base
Bluetooth	Yes	Base

12. LED indicators

12.1. Functional indication



Your IQTB-GS820 has the following colour LED indicators on its main panel:

POWER – red, when lighted, indicates power is being supplied to the device

GSM - green, indicates GSM network, starts blinking for a longer time, approx. every second – searching for GSM network, a short blink indicates that your device has been connected to the network successfully. If the indicator is lighted red – a terminal is connected to your device via Bluetooth. A red light fades out - activity/data transfer via a Bluetooth terminal is performed.

OUT1/OUT2 - yellow, when lighted, it indicates the status of the output OUT1 and OUT2: lighted - on, not lighted – off.

IN1/IN2 – digital inputs, when lighted, it indicates that voltage of 2 – 30 VDC is present.

12.2. Error conditions

POWER - red, blinks 2x per second, lighted and then fades out, a SIM card is not inserted.

GSM - green, blinks 2x per second, the SIM card with PIN request enabled has been inserted. You are required to disable PIN request by inserting the SIM card in your mobile phone and in the menu.

13. Error messages

Wrong command, similar is:

A wrong command has been entered, your device does not know such a command; however, similar commands will be listed.

Incorrect parameters, please check the command and try again.

A correct command with an incorrect parameter has been entered. You can get a list of correct parameters after adding the "?" character. This applies to text parameters.

parameter is out of limit!

A correct command containing an out-of-limit parameter has been entered. This applies to numerical parameters. Correct limits are given in this guide, or you can use the HELP command, implemented in your device, for the particular command.

Commands file is corrupted!

The commands file is missing in the internal memory, or has been corrupted, for example as a result of overvoltage. Please upload the commands file again into your device. This warning is available only in English.

14. Specification

Model	IQTB-GS820
Mains power, consumption quiescent, maximum	200mA max (range at 12VDC), 50mA quiescent without switched relays and transmission, 160mA max at transmission + 200mA max charging of supercap + 40mA Output1 - ON + 40mA Output2 - ON
Output	2x230Vst/16A - resistive load
Operating temperature and relative humidity	-10 up to 50 °C , max 80 %
Outputs	Output 1: relay, 230V/16A, Output 2: relay, 230V/16A
Inputs	2 x 0 up to 30VDC , treshold of detection 2V
Working conditions	Normal 25°C
Lifetime of supercap	Up to 1mil charging cycles, up to 3 years at 25°C
GSM	Quad band 850 / 900 / 1800 /1900 MHz SIM Plug-in 3V
Instalation category	Class II., overvoltage of max. 3000V
Features	Home appliances control by SMS, making a call, IVR, automatically, or manually Monitoring of the inputstatus Gate opener Alarm activation
Dimensions	83x73x25 mm
Weight	80g
Antenna connector	SMA(f)
Antenna	1dBi , VSWR 2,2 included in the package

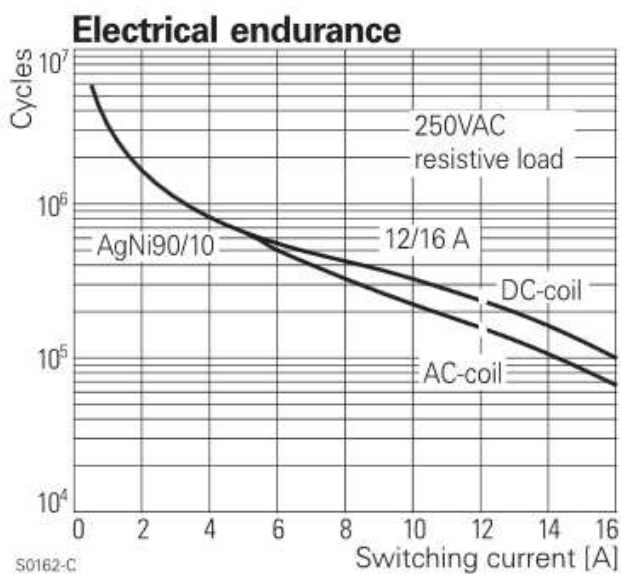
15. Instalation rules for dual radio device

You are obliged to follow the following rules during instalation of any radio device working in duplex mode.

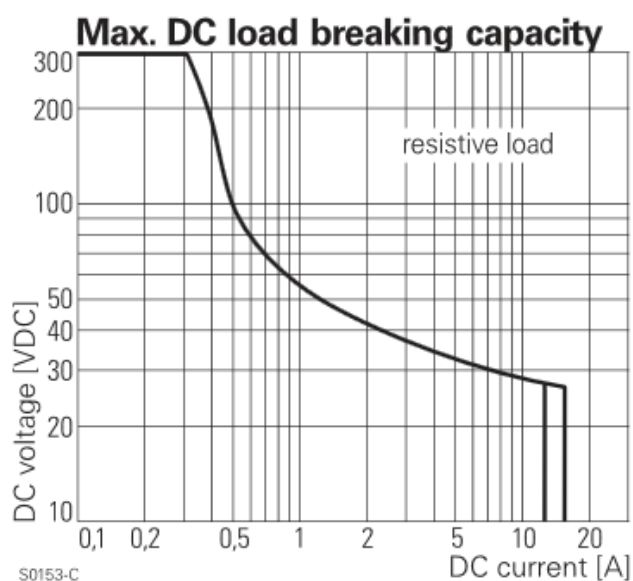
- Use an antenna with a higher gain and lower SVR in case of low signal level - under 50%.
- Do not instal your antenna near metal objects.
- Do not instal your device in the environment which can limit the signal level, not in metal boxes!
- Your antenna cannot be directed towards the internal device electronics. Otherwise, we cannot guarantee that your device will work properly.
- The device will send warning sms for any incomming SMS without other effect if signal level will under 20% !

16. Features and connection of switching elements

16.1 Lifetime for using AC voltage

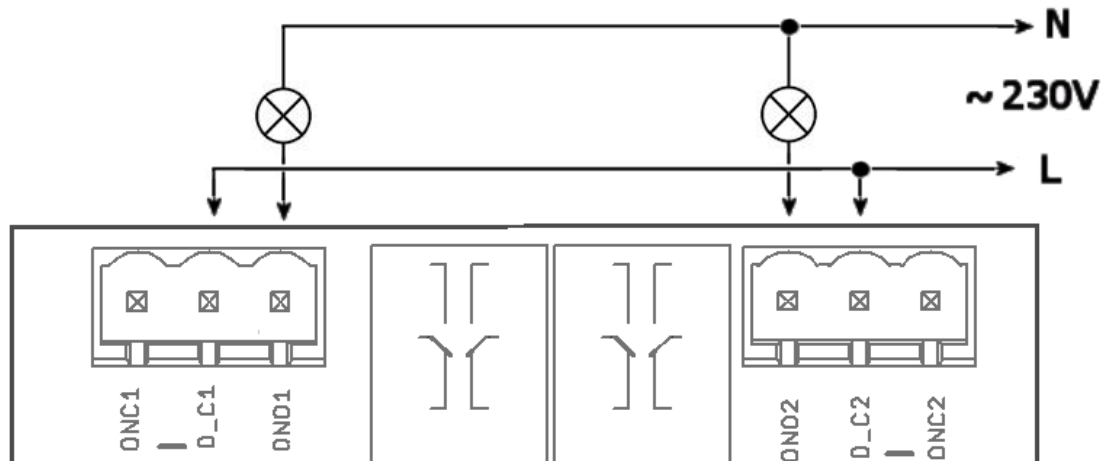


16.2 Max DC load breaking capacity



The output stage is using a mosfet driver with a zener diode so that a relay anchor could drop out in a fast way, in order to reduce contact burning in case of inductive load.

16.3 Load connection to the device output

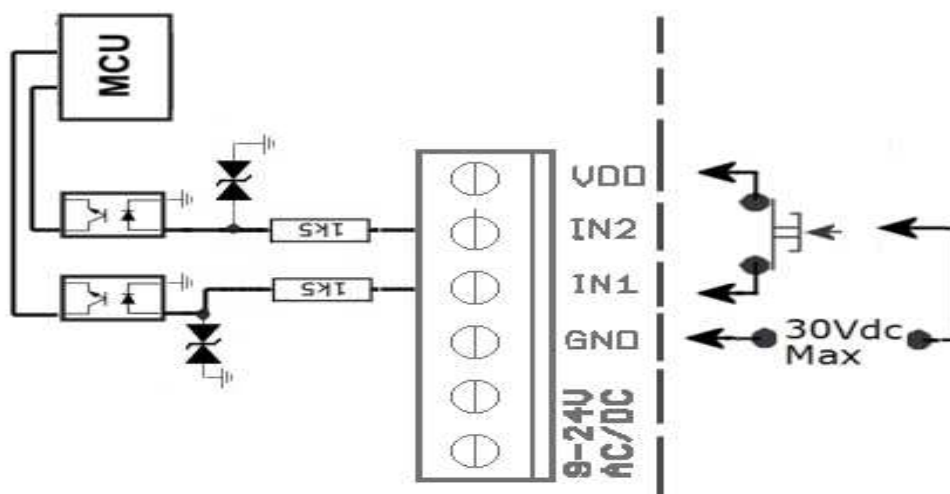


Your device has two independent non-potential NO/NC outputs with the maximum load of **16A** (resistive) for 230VAC voltage, which are the output contacts for the relays.

The electrical strength according to EN 50178 is **5kV** (1,2/50 us).

The following scheme shows how two lamps are connected to these outputs on your device.

17. Input specification – digital inputs



Internal connection of the digital inputs is shown in the block scheme.
GSM antijamming filters are not illustrated.

Each of the inputs is separated by an optocoupler up to voltage of max 30VDC.
IN2, IN1 – can be activated by DC >2V. All inputs have built-in overvoltage protection.

In order to activate the selected input, voltage higher than 2V must be present at that input.

If activated, the respective indicator will light up on the front panel of your device.

18. Accessories

Optional accessories can be connected to this product. For example, antennas, BlueTooth/USB adapters, water level detector, flooding detector, flow detector and other compatible accessories with device's digital inputs.

19. Configuration of original English set of commands

If you change and upload an incorrect set of commands in another language into your device, you are allowed to get back to the original set of commands in English.

Firstly, disconnect your device from the power supply, press the push button and hold it down. Then connect it to the power again and release the push button. By this way the original set of commands will be configured into your device.

20. Operation, maintenance and security safety recommendations

- The product is not intended to be a security device, it provides this service only as supplementary.
- The product was designed only to indoor use, such as homes, offices, etc. Do not expose the device to liquid, moisture, or aggressive environment. Do not expose the product to an excessive vibration or shock, high temperature, and prevent it from falling as this may damage it. If you use the product in other conditions than the **standard 25°C**, you will shorten the life span of the internal battery and other components.
- Before use, please check, if mobile phones can be used in the area, where you wish to install the device. If not, please do not put the product into operation, as it can have negative influence on other electronic systems!

- Please connect appliances with the maximum current below 16A. If you need to switch higher current load, please use an external contractor rated for target load. Switching higher than nominal rating currents and/or loads with severe inductive/capacitive character with high startup currents can cause permanent damage of switching elements.
- Before using a SIM card, please delete all received SMS messages from your SIM card.
- The product is not a toy for children; a SIM card represents a small part that can be easily ingested.

21. Warranty

The supplier provides warranty for IQTB-GS820 for up to 24 months starting from the purchase date. This warranty does not apply to damage resulting from abnormal use, and from breaking the operation recommendations as listed above in the user guide. Further, the warranty does not apply to mechanical and electric damage in the antenna input, universal input and internal switching element in case of switching appliances with improper load (inductive/ capacitive).

Serial number	Purchase date	Supplier's signature and stamp

No guarantee can be given if the product's serial number is not identical to the number stated in the warranty certificate, if it has been modified, deleted, or is illegible, if defects have been caused by mechanical damage, improper use (installation in unsuitable, humid environment, caustics poured over the product and others). Further, this warranty does not cover situations if defects have been caused by any outside event (overvoltage in network, electromagnetic field, improper range of work temperatures, disaster, and others), if incorrect voltage has been used in the product, in case of intervention of an unauthorized person, if the product has been modified or repaired.

This warranty becomes void if any person has made modifications or adapted the product in such a way that it will have more functions, or to operate the product in different country than the country it was designed for, manufactured and approved for. This warranty does not affect any rights, which the consumer may have according to valid legal regulations.

Warning for customers: We strongly advise you to keep your receipt of purchase, let the seller fill out a warranty certificate and keep this certificate as well.

In case of any warranty claim you are required to present a warranty certificate filled out accurately and clearly.

If this warranty certificate is not filled out accurately and clearly, then the warranty period begins from the purchase date as stated on your receipt of purchase.