

FOR INTEGRATOR: This Document N°3 is the User Manual for the consumer describing how to manage and configure the device with SMS commands. The latest version of this document can be downloaded via the direct link www.isocket-smarthouse.com/D3-EN. If you are an integrator installing and configuring the device for your customer please use the following documentation first: Installation Guide (Document N°1 describing technical aspects of installation), direct link www.isocket-smarthouse.com/D1-EN and Configuration Guide (Document N°2 which is the guide for the installation and use of the software iSocket Manager USB, which help to easily configure your device), and the direct link www.isocket-smarthouse.com/D2-EN. iSocket Manager USB software is not supplied with product since we regularly publish improvements and updates. The latest version of this software can be downloaded free of charge via the direct link www.isocket-smarthouse.com/USB. The software downloaded from the website is the exclusive property of iSocket Systems. As an end-user you are granted a non-exclusive license to use this software. This software is licensed but not sold to you. Before downloading please read the full License Agreement available on the website.

FOR CUSTOMER: Thank you for choosing iSocket. Please take a few minutes to read through these operating instructions carefully before using the product so that you can get full advantage of the functionality and get maximum enjoyment from it. Pay special attention to the safety instructions in Chapter 2! Incorrect use could affect your guarantee or jeopardise health or property. We reserve the right to make design changes on the device and its software without prior notice. Deviations not mentioned in this instruction might exist in the software, which is considered acceptable and not considered a defect. Be sure to read the terms of warranty before using the device, so that you do not lose your rights under the guarantee as a result of improper operation (Annex C). You agree with the terms of warranty and limitation of liability described in Annex C when you purchase this product. Please keep these operating instructions in a safe place for easy access when needed. iSocket Systems hope you thoroughly enjoy using your iSocket.

IMPORTANT NOTES!

- **These instructions apply to product iSocket Smart Relay in different modifications. In some cases the text clearly indicates which option is not available in the certain version of the product, but in some not. Please refer to technical information (Annex A) for detailed information about the differences in the devices. The documentation and product are subject to change without notice.**
- **This device must be installed by qualified personnel only! The User Manual does not contain information about advanced technical aspects of installation. For this information refer to the Installation Guide (Document N°1) available from our website.**
- **Your iSocket device has a unique feature - "iSocket® Online 24/7" - that gets the device back online even after a break in the GSM-network. However if the signal in your area is weak you might need to connect an external outdoor antenna.**
- **Different types of alerts that iSocket send you (power failure / power restored / temperature rise /temperature fall / sensor triggered / etc.) rely on the correct configuration of the mobile phone number for the alerts. Please follow the introduction in "Quick Start" (Chapter 3).**
- **The unit uses a Lithium-ion battery and MUST NOT be used outside the specified temperature! Please refer to technical information (Annex A) for detailed information about operating conditions and read the safety instruction (Chapter 2) carefully. The battery should be charged at least 24 hours before use. The battery will start charging as soon as power is provided to the unit.**
- **If you use a prepaid card you might need to activate it first with an unlocked GSM cell phone. More information is available from www.isocket.eu/prepaid/**
- **Block access to iSocket management for unauthorised users! If there are no security settings, then anyone can deplete the card's credit.**
- **The software (firmware) supplied with this product is the exclusive property of iSocket Systems. As an end-user you are granted a non-exclusive license to use this software solely in combination with the device on which it is installed and with which it is supplied. The license is non-transferable and you do not have the rights to grant sublicense. This software is licensed but not sold to you.**
- **Do not transport the device with the SIM-card installed – see Chapter 17 for the reason.**

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1. Device Description

iSocket® intelligent devices are designed for the remote control of electrical equipment. iSocket® devices can also be used for monitoring premises (security control, temperature monitoring, etc.) and can provide information about the state of the premises via the mobile network.

iSocket Smart Relay is a complete system for remote monitoring of your home. It has several alarm inputs and relay outputs, as well as inputs for several external temperature sensors. This Smart Relay is controlled via the GSM network using standard mobile phone SMS-commands. It is also possible to activate operations by a phone call. GSM SIM-cards from most GSM-operators, including prepaid cards (PAYG), can be used. Initial configuration could be done through the USB from the PC. iSocket Smart Software will help you to configure and manage the device easily.

You can switch almost any electrical equipment remotely with iSocket Smart Relay, since you can connect electrical equipment which is not fitted with a plug (for example a central electric heating system, boiler, electric sauna, etc.). You can connect them either to relay outputs directly or through contactors.

You can connect any number of sensors to 5 separate inputs. Notification will be sent when it is triggered. For example, it could be a motion sensor, an "opening doors" sensor, a fire detector, gas leakage detector, water detector and many more.

This Smart Relay can be used as a thermostat thanks to its built-in thermometer, which turns equipment on and off according to your settings. iSocket Smart Relay can send information about the room temperature to your phone. It has a built-in battery and the device will continue monitoring the temperature even after power is cut off! It will also inform you in the event of power failure in a remote area. Moreover you can power device from either a 12V DC power source, including uninterrupted power source (UPS) or from AC-DC adapter. Thus you can use this Smart Relay in the premises where only 12V DC is available!

An optional built-in microphone allows you to hear what is happening in the room from a remote location. Note that the facility to remotely monitor sounds in premises may not be used for illegal purposes! More information about the microphone feature is available in Chapter 10.

Using an optional wireless (RF) channel you can connect a number of wireless sensors and wireless slave relays. Thus you can extend your system after it has been hard-integrated for you by qualified personnel. You can connect new wireless sensors at any time yourself without professional help. With wireless iSocket slave relays you can connect any appliance which is fitted with a plug (such as a computer, transferable heater, refrigerator, etc.) and manage them via your central hard-integrated iSocket Smart Relay!

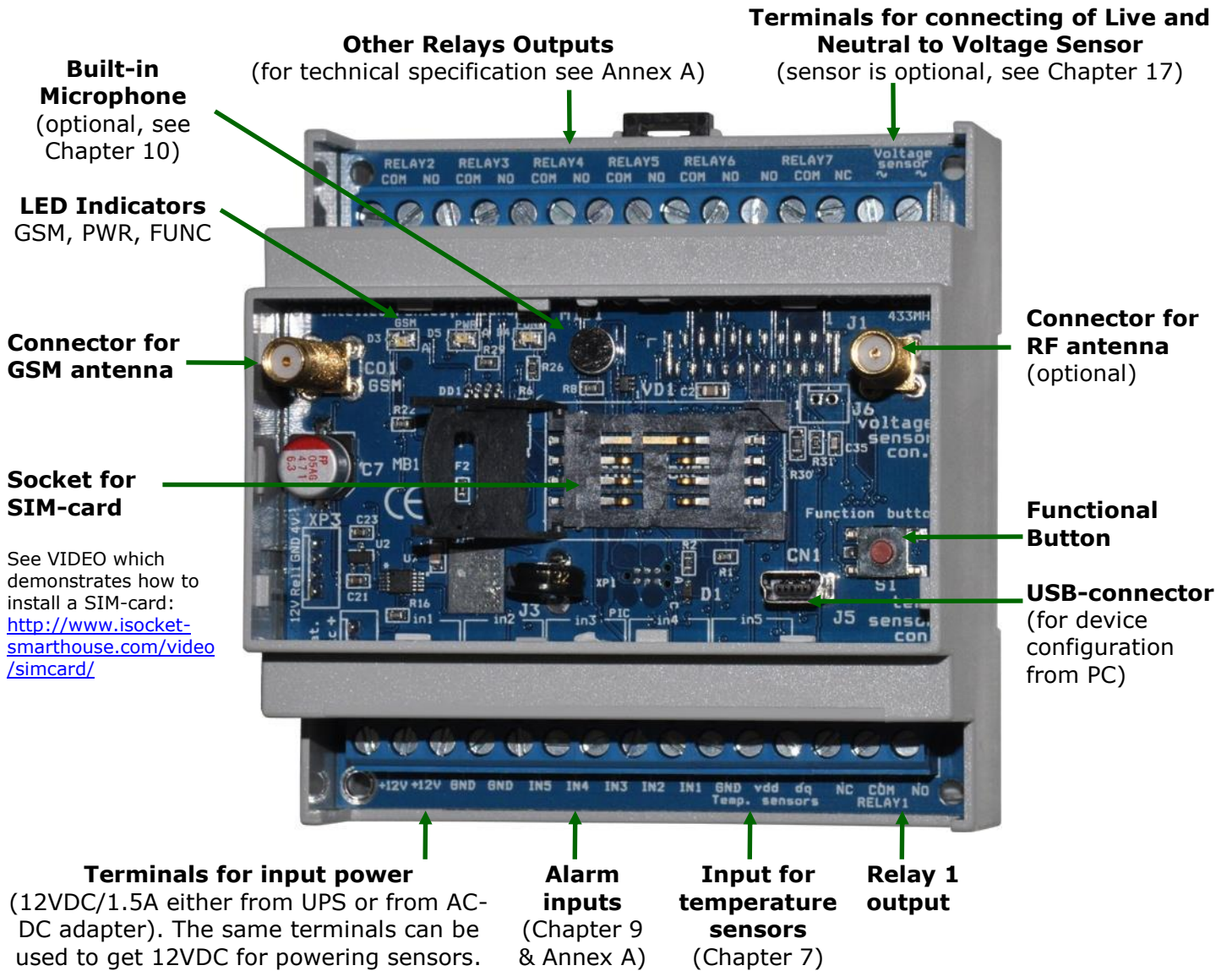
NOTE! Some features mentioned here might be optional. Please refer to Annex A for a detailed specification.

The following main options for iSocket Smart Software and iSocket Smart Relay could be mentioned:

- Configuration and Management via USB, SMS, Call
- Three security levels (password, by phone numbers, limited config window)
- Support 10 security numbers to limit access to management and configuration
- Scheduling start, stop, status info, temperature info, Alarm Function on/off
- Delayed start/stop, turn on/off for a certain period
- Unique personal names (aliases) for inputs, relays and sensors
- Alarm notifications by actuation of external sensors, name of sensor indicated in the message
- Support 10 numbers for alerts (SMS/Call) and additional 3 number to security center
- Date and time synchronization from GSM-network
- Account balance information for SIM-card
- Free of charge command confirmation (device calls back and hangs up)
- Battery capacity alerts, power failure/ power restored alerts
- Many other features
- Applications for Smartphones

For more information about the technical characteristics of the iSocket Smart Relay see Annex A and also visit our website www.isocket-smarthouse.com.

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See VIDEO which demonstrates how to install a SIM-card:
<http://www.isocket-smarhouse.com/video/simcard/>

Package also contents



Installation of the device

NOTE! This device must be installed by qualified personnel only! This User Manual does not contain information about advanced technical aspects of installation. For this information refer to the Installation Guide (Document №1) available from our website. This User Manual is intended for an end-consumer who will use the product and covers only a few aspects of the basic installation. If the unit was installed for you by qualified personnel without a SIM-card you need to install a SIM-card to the unit before start use it. Please remove power from the unit and unscrew the antennas. Then open the top plastic cover of the unit with a suitable tool (eg flat screw-driver) to access the SIM-card socket (see picture above). The SIM-card socket can be opened and closed by moving the lip to the left or right accordingly (direction for opening and closing are shown on the lip of SIM-card socket. After installation of the SIM-card, close the top cover and screw antennas into place. Make sure that you don't mix the GSM and RF antennas, otherwise you may experience problems with reception!

2. Safety Instructions

This appliance complies with accepted technological standards with regard to safety. Nevertheless, as manufacturers we consider it our obligation to make you aware of the following safety information. To ensure years of trouble-free enjoyment, and to maintain your guarantee, please note the following.

- This unit must only be installed by qualified professional personnel. Ignoring this requirement may cause damage to property and health as well as to the device and warranty will be invalidated.
- Never carry out repairs yourself! There are no serviceable parts in the device.
- The operating voltage of the appliance and the mains voltage as well as the type of current must match (see the rating plate on the underside of the appliance).
- Do not connect to appliances which cannot be left unattended!
- Do not exceed power load limit for relay outputs and alarm inputs and other electrical parameters specified in the technical characteristics. Check the power of the connected device! Use contactors for the connection of heavy current equipment.
- The device is intended only for domestic private non-commercial use. Do not use in emergency environments: e.g. military, hospitals etc!
- This product is not designed for safe disconnection of the controlled equipment from power network; the device is not equipped with a residual-current device (RCD). Make sure that your home electrical network meets safety standards.
- This product does not contain fuses or circuit breakers for relay outputs. You must use external circuit breakers when you connect external loads.
- The product is designed for indoor use in dry area. Do not use it in wet or chemically aggressive environments! For example, do not use it in the bathroom. It is also not designed for industrial operation in aggressive environments.
- Do not use this device if the casing is damaged!
- Do not shake or drop the product. This could cause damage!
- Keep away from direct sunlight.
- Keep out of reach of children!
- Block access to the management and set-up of the device to unauthorised users (Chapter 5).
- Read additional safety information in Annex C.



iSocket Systems hereby declares that this iSocket Smart Relay complies with the essential requirements and other relevant provisions of Directive 1999/5/EC.



At the end of the product's useful life, please dispose of it at appropriate collection points provided in your country.



NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: reorient or relocate the receiving antenna; increase the separation between the equipment and receiver; connect the equipment into an outlet on a circuit different from that to which the receiver is connected; consult the dealer or an experienced radio/TV technician for help.


Safety Instructions for the Battery

The safety instruction does not tell you how to maintain the battery, because this battery is installed inside the unit. It is strictly prohibited to replace the battery yourself - an authorised specialist must be consulted. However this safety instruction does describe the care of units using a Li-ion battery.

Read all the safety information and instructions. Failure to comply with the safety information and instructions may cause fire and / or serious injury.

We pay a great deal of attention to the design of every battery to ensure that we supply you with batteries which offer maximum durability and safety. Despite all the safety precautions, caution must always be exercised when handling devices with batteries. Studies have shown that incorrect use and poor care are the main causes of the damage caused by batteries. The following points must be obeyed at all times to ensure safe use:

- Don't throw battery or device with battery into an open fire. There is a risk of explosion!
- Always comply with the storage conditions (see Annex A)! Don't keep the device with its battery in places where the temperature is liable to reach levels outside those specified. In particular, do not leave the device in a car that is parked in sunshine.
- If the battery suffers overloading and/or overheating, the integrated protective cut-off will switch off the charging/discharging for safety reasons. If this happens you will not be able to get a power failure alert. Using the battery at temperatures outside those specified in the technical information (Annex A) will cause chemical damage and may cause a fire.
- In the event of incorrect use, fluid may escape from the battery. Avoid contact with this fluid. If you touch it by mistake, rinse the affected area with water. If you get the fluid in your eyes, seek medical advice. Stop using the device if fluid is coming from it!
- Li-ion batteries are subject to a natural ageing process. The battery must absolutely be replaced when its capacity falls just 80% from the capacity as new. A weak, old battery is no longer capable of meeting the high power requirements and therefore poses a safety risk.
- Exhaustive discharge will damage the battery. The most common cause of exhaustive discharge is lengthy storage or non-use of a partly discharged battery. Don't allow the device to be stored for a long time without use. Never use a battery-driven device if you suspect that the last time the battery was charged was more than 12 months ago. There is a high probability that the battery has already suffered dangerous damage (exhaustive discharge).

 Rechargeable batteries contain materials that are potentially harmful to the environment. Batteries may not be disposed of with normal domestic waste. You should dispose of used batteries at your local collection point.

3. Quick Start

Step 1. Install SIM-card.

You need a SIM-card from a GSM-operator to be installed in the unit. If you use a prepaid card you might need to activate it first with an unlocked GSM cell phone. More information is available from www.isocket.eu/prepaid/

Do not insert or eject the SIM-card on a running device! Switch off the device before you insert or eject SIM-card. Do not use SIM-cards that contain messages! Remove all messages from the SIM-card. The device might reject some old sim cards. Please make sure you are using a modern sim card which complies with specification.

NOTE! You must disable PIN-code authorisation for the SIM-card! You can only disable PIN authorisation by using your mobile phone. Insert the SIM-card into your mobile phone and disable PIN usage using the phone menu. You can find more information in the manual for your phone or ask assistance from the shop, where you purchased the mobile subscription. If you have forgotten to disable PIN authorisation the GSM indicator will be blinking every second. Make sure that PIN authorisation was turned off!

If the SIM-card is not inserted correctly or is damaged the indicator PWR and FUNC will signal this by specific blinks (see Chapter 14). The same blinking can occur when the PIN-code authorisation is not disabled.

Step 2. Apply power to the device.

We assume that a circuit breaker was installed for you by qualified personnel. Switch on this circuit breaker to apply power to device. After the power is applied, the PWR and FUNC indicators blink three times simultaneously. If everything is functioning correctly the PWR indicator will be a constant light. The GSM indicator blinks once a second during network search and every 3 seconds when the network has been found. More information about the indicators in Chapter 14.

NOTE! If during the above steps you need to remove power from the device the device will continue to work from the built-in li-ion battery. The battery can be switched off with the Functional Button (see figure in the Chapter 1). Please refer to instruction how to do it in Chapter 17.

Step 3. Execute your first configuration command and make yourself the main user

Your device with iSocket Smart Software has the unique feature "Make me boss!". Send the configuration command **MAKEMEBOSS** to the phone number of the SIM-card installed in the unit and it will automatically assign the phone number from which you have sent it as the number for all types of alerts (see Chapters 7.4, 9.1, 11, 17) and will also enable protection by the list of phone numbers and will add the number to the list (see Chapter 5.1).

NOTE! Make sure that you don't use the "hide my number" option for the number from which you execute the command. If the system cannot recognise the number it will not add it to the number for alerts and to the security list. Alternatively you can use the methods of adding these numbers which is described in Chapter 5.1 (for SECNUMBER) and 5.4 (for ALERTNUMBER). **Please also read the IMPORTANT NOTE in Chapter 5.1 about the specific requirements of some mobile networks!**

4. Managing the iSocket Device

You can manage the device with SMS-commands, by phone call or manually. SMS management offers more options.

NOTE! Full configuration and some diagnostics of the device can be done via USB only with iSocket Management USB software available from our website. This User Manual describes only those configuration and management options which are performed via mobile network. **Almost everything described below can be configured using the USB and might have already been configured for you by the integrator that installed the device for you.**

4.1 Managing by SMS

Commands are sent in form of SMS messages to the SIM-card number of the iSocket. Messages have the following syntax:

COMMAND (for example, **STATUS**).

If a password was configured (see Chapter 5), then you must use following syntax:

passwordCOMMAND (for example, **12345STATUS**), where *12345* is a password set by the command *PASSWORD=12345* (more details in Chapter 5).

Commands are not case sensitive. There are three types of commands on device:

1. Configuration commands (marked "30min" in the tables)

These commands configure some parameters on the device and usually (not always) have the syntax *COMMAND=VALUE*, so they have symbol "=" after the command name. The configuration can only be performed within 30 minutes after device has been powered on or after the last configuration command has been received. You can set up the facility to reset the configuration interval (see section 5.3). If you try to configure device after 30 minutes, then you will get the message "*command - Time for configuration expired (30min)!*" (only if *ERROR=ON* - see Chapter 6). To remind the user of this limit we have marked configuration commands as "30min" in the column "type" in the tables. Settings are stored in non-volatile memory and are not lost when power is off. Each configuration command has a default value. This is the value that was installed at the factory (for details see Chapter 13). Where possible we typed in bold the default value in the tables.

2. Information commands (marked "Inf" in the tables)

These commands inform you about different statuses of the device or about other corresponding statuses, so they have information nature. If a command has a question mark at the end (*COMMAND?*), then this command will inform you about current value of the parameter, which has the same name as the command. These commands are available at any time.

Should a *configuration* command have different values these will all be seen in response to the *information* command associated with this configuration command. The values will be comma-separated and the current active value will be indicated in parentheses. For example, you send the information command "*COMMAND?*". In response you will get the reply "*COMMAND=VALUE1,(VALUE2)*". This means that the current active value is "*VALUE2*", and "*VALUE1*" is another value acceptable for this command. This syntax is made for your convenience - you do not need to refer to the manual each time when to remember all possible values. They will be given in the response. The first value in the response is the factory default value (see Chapter 13).

3. Control and management commands (marked "Ctrl" in the tables)

Used to control the iSocket device - perform some active action. They are not limited by configuration window and can be used at any time.

NOTE! Configuration commands are only accepted during the first 30 minutes after powering on. This is for security reasons. If you want to reconfigure the device, you must switch off the power (including power from the battery – see Chapter 17) and turn it on again. You can also set up the facility to reset the configuration interval (see section 5.3).

You will get a response after sending the commands. This can be disabled if desired (see Chapter 6). If you make a mistake in the command and send an incorrect command, you will receive a message "*COMMAND - No such command exists on the device!*" (Only if ERROR=ON - see Chapter 6). If a command longer than 30 characters was sent, it will be deleted without any response notifications.

4.2 Managing by Phone Call

Output relays can also be managed by mobile or landline phone. For example, you can call to the phone number of the SIM-card in the device and the equipment connected to the certain relay (e.g. heater) will be turned on. After a call to iSocket the action occurs immediately. The action must be pre-configured. There is no action configured by default. Keep in mind that you are not able to configure the active actions if the security number list (Chapter 5.1) is not configured. This is because the password protection is not available for calls, so anyone can call to the SIM-card number if there is no security numbers list protection and this call may cause unwanted reboot or microphone activation. Accordingly, if you are going to disable the security numbers list protection, then the option *RING* goes into the value "*NOACTION*" automatically.

In response to the activating call the device will send you a message. You can configure a call response instead of an SMS. Read more about this in Chapter 6.2. The following table indicates which actions can be pre-configured.

Command	Description	Response	Type
RING=SWITCHx	Switching (changing status to negative) certain relay by phone call, where X is the relay's number	RING=SWITCH1 – OK SECLIST is not active!	30min
RING=RESTARTx	Restart (return to the same status after a certain period of time) certain relay by phone call. Time for restart set by RESTARTTIME.	RING=RESTART2 – OK SECLIST is not active!	30min
RING=PULSEx	Send a pulse to a certain relay by phone call, where X is the relay's number. The duration of the pulse can be configured via USB. By default this is 2 seconds. This operation works similarly to the RESTART operation. So, if the relay was turned off it will be turned on for a 2 seconds and then turned off. And if the relay was initially turned on, then after this action it will be turned off for 2 seconds and then turned on again. So this pulse can be used as a pushbutton to start and stop, for example, magnetic starters or to open a gate. See more information in the Installation Guide (Document №1).	RING=PULSE1 – OK SECLIST is not active!	30min
RING=MIC	Microphone is activated by phone call and you can detect sounds coming from the room. No relays switching. See details in Chapter 10.	RING=MIC – OK SECLIST is not active!	30min
RING=NOACTION	Ignore phone calls	RING=NOACTION-OK	30min
RING?	Informs what action configured	RING=(NOACTION), RESTARTx, SWITCHx, PULSEx, MIC	Inf

4.3 Aliases for Relays (Outputs) & Inputs

For your convenience you can create individual names (aliases) for relays and inputs, so you can use those aliases in the future for managing the connected equipment. For example, you can name Relay1 as "Server" and Relay2 as "Boiler" and in all applicable command use these alias names. For example, you can use command "ONBoiler" instead of "OnRelay2". So you don't need to remember to which relay you connected particular equipment. RelayX and alias names exist together. So you can use your alias name as well as the relay's name at the same time. You can always get the list of aliases with a special information command. See all related commands in the table below. For alias names only latin symbols and numbers are accepted, no space. 11 symbols maximum.

NOTE! Do not use the following names for aliases: relay, input and other names which can be reserved for internal use. Software doesn't check this, so you will get unexpected results if you use this type of name for aliases.

Command	Description	Response	Type
RELAYxALIAS=AliasName	Create an alias name for particular Relay (Output). "X" is number of Relay. "AliasName" – your alias name for Relay.	RELAY1ALIAS=BOILER – OK	30min
INPUTxALIAS=AliasName	Create an alias name for particular Input. "X" is number of Input. "AliasName" – your alias name for Input.	INPUT1ALIAS=FIRESENSO R - OK	30min
RELAYALIASES	Informs about all alias names for Relays	R1: Boiler R2: - R3: Server ...	Inf
INPUTALIASES	Informs about all alias names for Inputs	i1: FireSensor i2: - ...	Inf

4.4 Simple Commands for Basic Management

The list of simple commands for management and configuration is shown in the following table.

Command	Description	Response	Type
ONRELAYx or ONAliasName	Turn on certain Relay by its number or its alias name. For ex.: <i>ONRelay1</i> or <i>ONBoiler</i> .	Relay1 is ON Relay1 (Boiler) is ON	Ctrl
OFFRELAYx or OFFAliasName	Turn off certain Relay by its number or its alias name.	Relay1 is OFF Relay1 (Boiler) is OFF	Ctrl
ONRELAYxT123 or ONAliasNameT123	Turn on certain Relay by its number or its alias name for 123 minutes. Available values: 1-720 minutes. For ex.: <i>ONRelay1T5</i> or <i>ONBoilerT600</i> .	Relay1 is ON for 600 min Relay1 (Boiler) is ON for 600 min	Ctrl
OFFRELAYxT123 or OFFAliasNameT123	Turn off certain Relay by its number or its alias name for 123 minutes. Available values: 1-720 minutes	Relay1 is OFF for 300 min Relay1 (Boiler) is OFF for 300 min	Ctrl
ONALL	Turn on all Relays	All Relays ON	Ctrl
OFFALL	Turn off all Relays	All Relays OFF	Ctrl
RESTARTRELAYx or RESTARTAliasName	Restart (return to the same status after a certain period of time) certain Relay. Time for restart set by RESTARTTIME.	Relay5 restarted Relay4 (Computer) restarted	Ctrl

RESTARTTIME=5	Configures time in second for RESTART command. Value: 1-600 seconds.	RESTARTTIME=5 - OK	30min
RESTARTTIME?	Informs about RESTARTTIME value	RESTARTTIME= 5 seconds	Inf
PULSERELAYx or PULSEAliasName	Send a pulse to a certain relay by its number (X) or alias name. The duration of the pulse can be configured via USB. By default this is 2 seconds. This operation works similarly to the RESTART operation. So, if the relay was turned off it will be turned on for a 2 seconds and then turned off. And if the relay was initially turned on, then after this action it will be turned off for 2 seconds and then turned on again. So this pulse can be used as a pushbutton to start and stop, for example, magnetic starters or to open a gate. See more information in the Installation Guide (Document №1).	Pulse on/off for 2 seconds was sent to Relay1 (Starter) Pulse off/on for 4 seconds was sent to Relay1 (Starter)	Ctrl
STATUSRELAYS	Status of all Relays	R1: ON R2 (Boiler): OFF R3 (MainServer): ON ... R8: OFF	Inf
SIGNALREPORT	Report about quality of signal	Signal: -78dBm (Good)	Inf

Would you like to see more features? You are welcome to send us your feedback: <http://www.isocketworld.com/feedback/>

5. Security & Notification Settings

Block access to iSocket management for unauthorised users! **If there are no security settings, then anyone who knows the phone number of the SIM-card will be able to manage the device and deplete the card's credit - which is not advisable!** The device uses two methods of protection against unauthorised access:

- Only allowing access to authorised phone numbers
- Authentication by password

Both methods can be used separately or together. In the first method the device ignores SMS-commands and calls from numbers that are not listed. The list can contain up to 10 numbers. The second method involves the use of individual 5-characters password. This password must be typed before the SMS-commands without any space or special characters as shown here:

passwordCOMMAND (for example, **12abcSTATUS**),

where *12abc* is a password set by the command *PASSWORD=12abc* (more details below).

5.1 Security Numbers List Settings

The security list allows you to configure up to 10 numbers and up to 15 digits for one phone number. Below is a list of commands that explain how to activate the security list and how to add a number. By default, the security list is disabled and does not contain any numbers. The first number can be added in a simple way by executing command **MAKEMEBOSS** - see introduction to this feature in the "Quick Start" (Chapter 3, Step 3). However all the next numbers must be added using the command **SECNUMBER+**, described in the table below, because all the next numbers from which you try to execute the **MAKEMEBOSS** command will already be treated as non-authorised.

Command	Description	Response	Type
MAKEMEBOSS	This will add the number from which you send message to the list and will enable security list (SECLIST=ON will be active), also it will add your number for all types of other alerts (Chapter 7.4, 9.1, 11 and 17)	Your phone number has been assigned for all types of alerts and was added to security list which has been activated	30min
SECNUMBER+3589123456789	Add new number to security list	SECNUMBER+3589123456789 – OK	30min
SECNUMBER-3589123456789	Delete specific number from security list	SECNUMBER-3589123456789 – OK	30min
SECNUMBER-ALL	Delete all numbers from the list	SECNUMBER-ALL – OK	30min
SECNUMBERS	Request for security list numbers	SECNUMBERS: 3589123456789, 3589000000555	Inf
SECLIST=ON	Activate security list	SECLIST=ON – OK	30min
SECLIST=OFF	Disable security list	SECLIST=OFF – OK	30min
SECLIST?	Information about security list activation	SECLIST=(OFF),ON	Inf

Telephone numbers must be added in international format (with country code) without spaces or hyphens. Here are two general examples of how to add and remove number 358-(0)9-123456789:

SECNUMBER+3589123456789 – example of adding number

SECNUMBER-3589123456789 – example of removing number

Here 358 is country code for Finland, (0)9 is city code for Helsinki and 123456789 is local number.

Here are two UNITED STATES examples of how to add and remove number 5555555:

SECNUMBER+1212555555 – example of adding number

SECNUMBER-1212555555 – example of removing number

Here 1 is the United States country code, 212 is the city code for New York and 5555555 is a 7-digit local number.

IMPORTANT NOTE! Some mobile operators indicate international numbers when transmitting SMS's (in our first example 3589123456789), but during the call such operators indicate number in local format (in our first example it will be 123456789). If such behaviour was noticed in your mobile network you have to add **both numbers** to the list! It means in addition to the international number you must also add the local number by the command **SECNUMBER+123456789**.

If you add a number to the list when the list is not activated, the protection will be disabled. Do not forget after adding number to activate security list by command **SECLIST=ON**. If you deleted all the numbers by command **SECNUMBER-ALL**, the protection will be disabled automatically (**SECLIST=OFF** became active).

Make sure that you don't use the "hide my number" option. All numbers that the system does not recognise are considered to be unauthorised numbers.

We suggest that you always use security list protection, even if you use password protection. Chapter 6.3 lists more reasons for this.

5.2 Password Protection

The following table shows how to set a password for managing access. The password must consist of 5 characters. Do not use a simple combination of numbers for a password! Password 12345, 11111, abcde and other such passwords are not secure!

NOTE! Don't forget to add the old password before the command **PASSWORD=x if you are going to remove password protection or update the password.**

Command	Description	Response	Type
PASSWORD=12abc	Set password 12abc	PASSWORD=***** – OK	30min
PASSWORD=NO	Disable password	PASSWORD=NO – OK	30min

5.3 Renewal of the Configuration Interval

If you're away from the device but need to reconfigure it and the configuration time has expired then you can resume the configuration. You will get another 30 minutes window for configuration. However taking into account that this timeout is an additional level of security the opportunity to reset this limit should be protected by password and configured in advance. If you have not done this in advance then you will not be able to do it remotely.

Please note the following: To be able to reset the interval you have to set a password for that. This password cannot be set if a method of protection was not configured (paragraphs 5.1, 5.2). You will get the message "No security setup!". Accordingly, if you remove all protection, the ability to renew the interval is also lost (RENEWINTERVALPW=NO setting becomes active). The password for the resumption of the interval consists of 9 characters.

Command	Description	Response	Type
RENEWINTERVALPW=123456abc	Set password 123456abc for configuration interval renew	RENEWINTERVALPW=*** ***** – OK No security setup!	30min
RENEWINTERVALpassword	This will renew configuration interval and you will get another 30min window for configuration commands. "password" must be changed to your actual password configured for this feature	Configuration interval renewed Renew password was not setup Invalid renew password!	Ctrl
RENEWINTERVALPW=NO	Remove password for configuration interval renew (renewal is not possible anymore)	RENEWINTERVALPW=NO – OK	30min
RENEWINTERVAL?	Informs whether it is possible to reset configuration interval limit or not	Password presented, renew possible	Inf

5.4 Configuration of the Numbers for Alerts

Before enabling different alerting (see Chapter 7.4, 9.1, 11 and 17) you must setup at least one number for alerts. There are few optional ways to setup this number. One is the feature "Make me boss!" (see introduction in the "Quick Start", Chapter 3, Step 3 and more in Chapter 5.1). Another option is the feature "Alert me!" – send the command **ALERTME** from the number which you want to be the number for alerts and the system will automatically assign the phone number from which you have sent it as the number for all types of alerts. You can send **ALERTME** from any number which is included on the security list (Chapter 5.1). You can also use the command **ALERTNUMBER+** to add a number for alerts manually (see description in the table below).

NOTE! Make sure that you don't use the "hide my number" option for the number from which you execute the command **ALERTME** and make sure that the number is in the security list. If the system cannot recognise the number or if the number is not authorised it will not add it to the number for alerts. **Please also read the IMPORTANT NOTE in the Chapter 5.1 about the specific aspects of some mobile networks!**

Alerts to the security centre

Smart Relay alerts you about many events, such as temperature-related info, scheduler actions, power status and when sensors are triggering. The last type of alerts is related to security. You may wish to configure separate groups of numbers for such alerts, for example if you want to notify your security team about a break-in or another event detected by sensors, but at the same time you don't want to disturb them with other alerts. For you we have designed the second group of alerts – SECURITYALERT. You can set up maximum 3 numbers to this group. If you already have your number in the ALERTNUMBER group, then you don't need to add it to this second group, otherwise you will get notification twice. Note that, in the event of a sensor being triggered, this group of numbers will be notified first.

Command	Description	Response	Type
ALERTME	This will automatically add the number from which you send the message to the list for all types of other alerts (see limitations in the IMPORTANT NOTE in the Chapter 5.1)	Your phone number has been assigned for all types of alerts!	30min
ALERTNUMBER+358912345678	Set the number for alerts manually. Instructions how to add a number are similar to those given in Chapter 5.1 (see examples there)	ALERTNUMBER+358912345678 – OK	30min
ALERTNUMBER-3589123456789	Remove number from list	ALERTNUMBER - 3589123456789 – OK	30min
ALERTNUMBER-ALL	Remove all numbers	ALERTNUMBER-ALL – OK	30min
ALERTNUMBERS	Information about numbers	ALERTNUMBERS: 3589123456789, 3589223456789	Inf
SECURITYALERT+358955555555	Set the number for alerts to security center. Instructions how to add a number are similar to those given in Chapter 5.1 (see examples there)	SECURITYALERT+358955555555 – OK	30min
SECURITYALERT-358955555555	Remove number from list	SECURITYALERT-358955555555- OK	30min
SECURITYALERT-ALL	Remove all numbers	SECURITYALERT-ALL – OK	30min
SECURITYALERTS	Information about numbers	SECURITYALERT: 358955555555	Inf

6. Command Confirmation

It is important to confirm that the command was executed successfully. For this purpose we have implemented notifications of each executed command. If you wish to receive execution confirmations the setting "hide my number" should not be activated on the phone from which you are sending messages or making calls to iSocket.

6.1 Confirmation of SMS-commands

If you activate this notification, you will be informed about each command execution. It is the default setting, but you can disable these notifications to save the cost of SIM-card messages.

Command	Description	Response	Type
SMSCONFIRM=ON	Response messages to SMS-commands will be sent	SMSCONFIRM=ON – OK	30min
SMSCONFIRM=OFF	Do not send response messages to SMS-command	SMSCONFIRM=OFF – OK	30min
SMSCONFIRM?	Information about SMSCONFIRM configuration	SMSCONFIRM=(ON),OFF	Inf

Commands of CTRL and INF type are not affected by the SMSCONFIRM setting due to the specific nature of the commands.

6.2 Confirmation for Phone Calls

When managing by phone call, your command will be also confirmed by return SMS, but you can configure the device to call back to the mobile phone instead of sending SMS. In this case iSocket will call to your phone within about 10 seconds and then hangs-up. So, SIM-card credit will not be spent. If you pick up the handset the microphone will be activated (optional component) and you can hear what is happening in the room. You are free to hang up whenever you want. You can also disable any responses for the phone calls.

Command	Description	Response	Type
RINGCONFIRM=SMS	Send response SMS after call to device	RINGCONFIRMTYPE=SMS - OK	30min
RINGCONFIRM=CALL	iSocket call back to your phone within 10 seconds and then hang-up	RINGCONFIRMTYPE=CALL - OK	30min
RINGCONFIRM=OFF	Don't notify results after phone call to the device	RINGCONFIRM=OFF - OK	30min
RINGCONFIRM?	Information about RINGCONFIRM configuration	RINGCONFIRM=(SMS),CALL,OFF	Inf

6.3 Incorrect Commands, Later Configuration and Commands From Unauthorised Users

If an incorrect command was sent to the device (typo mistake, for example), you will get the "*COMMAND - No such command exists on the device!*" response. If you have password protection, but forgot to specify it before command (see Chapter 5.2), you will get the "*Invalid access password!*" response. If you are trying to assign an invalid value to the configuration command, you get the message "*Incorrect value!*". You will get "*Time for configuration expired (30min)!*" response when you try to send a configuration command after the configuration time is up (see Chapter 4). If an unexpected error occurred during the command execution you will get the message "*Execute error!*". You can disable all the above error messages by setting options *ERROR=OFF*.

If the security list was configured (see Chapter 5.1) and someone tries to execute a command no response will be received until you install *SMSCONFIRMUNAUTH=ON*. If you set "ON" value for this parameter, then unauthorised numbers will receive the message "*Access deny!*" in response to an attempt to execute any command. **We do not recommend you to set "ON" value for this option, because unauthorised users who know the phone number of the SIM-card can deplete the card's credit with such response messages. Therefore, we also strongly suggest using protection with security list (Chapter 5.1), and not just password protection!** This is due to the fact that a command typed without a password is considered an incorrect command and the illegal sender will receive "*COMMAND - No such command exists on the device!*" in response. And he can also deplete SIM-card credits by such responses.

Generally, it should be noted that the *ERROR=OFF* command disables all reports about errors and later configuration for all senders. By default, this option is set to "ON", so that during the familiarisation period you can get all responses about errors and will not be confused when there is no response from the device. Once you are familiar with the device, you can then disable the error message responses. In the beginning however, we strongly recommend configuring the list of allowed numbers (Chapter 5.1) and keeping the option *SMSCONFIRMUNAUTH*, which is set to *OFF* by default.

The table below contains all the commands relevant to this section.

Command	Description	Response	Type
ERROR=ON	Activates sending of information SMS for each received SMS command, which was not executed due to any error.	ERROR=ON - OK	30min
ERROR=OFF	Disable the error messages responses	ERROR=OFF - OK	30min
ERROR?	Information about ERROR configuration	ERROR=(ON),OFF	Inf
SMSCONFIRMUNAUTH=ON	Send reports (errors, not permitted, time out) to unauthorized numbers	SMSCONFIRMUNAUTH=ON - OK	30min
SMSCONFIRMUNAUTH=OFF	Don't send reports to unauthorized numbers	SMSCONFIRMUNAUTH=OFF - OK	30min
SMSCONFIRMUNAUTH?	Information about SMSCONFIRMUNAUTH configuration	SMSCONFIRMUNAUTH=(OFF),ON	Inf

7. Measurement and Control of Temperature

Smart Relay support up to 5 external digital temperature sensors on one bus. One sensor is included to package. You can buy more sensors from us.

NOTE! The board supports 5 sensors in parallel mode, so they are sharing the same bus. If one of the sensors failed or the connection is lost it may be that other will not show the correct temperature information. Use only high quality cable for connecting sensors to the unit. For connecting diagram please refer to Installation Guide (Document N°1).

7.1 Sensor Installation

The names of the temperature sensors are pre-defined as TSensorX, where X is the number of sensor. You can change the name during installation process or later. Since all sensors are placed on the same bus, there is no particular number reserved for each sensor. That is why when you change the name of sensor it will just substitute the existing name (so, these are not aliases like in the case with relays and inputs). For installing the new temperature sensor you must connect it according to the picture provided in the Installation Guide (Document N°1) and use commands from the table below. You can also use USB for installation - see Configuration Guide (Document N°2). Up to 11 symbols allowed for sensor's name (only latin and numbers).

Command	Description	Response	Type
TSENSORINSTALL= AUTO	Smart Relay will get the the code of the sensor and store it to the memory under the name of the next free TSensorX.	Installed new temperature sensor: TSensor1	Ctrl
TSENSORINSTALL= Name	Smart Relay will get the code of the sensor and store it to the memory under the given name. This name will substitute the next free TSensorX.	Installed new temperature sensor: RoomTemp	Ctrl
TSENSORS	List of temperature sensors connected with device.	List of temperature sensors: TSensor1 RoomTemp	Inf
RENAMETSENSOR= Oldname:Newname	Give the name/rename certain temperature sensor. For ex.: <i>RENAMETSENSOR=TSensor1:BoilerTemp</i> or <i>RENAMETSENSOR=RoomTemp:OutSensor</i> This only works for installed sensors!	RENAMETSENSOR=TSensor1:BoilerTemp - OK	30min
REMOVETSENSOR= Name	Remove a particular sensor from the memory	TSensor1 have been removed	30min
REMOVETSENSOR= ALL	Remove all sensor codes from the memory	REMOVETSENSOR=ALL - OK	30min

7.2 Thermometer

Each sensor measures the temperature of the environment in the particular area where it is installed and iSocket can provide this information via SMS. Information about the temperature can be available right after the sensor is connected to the Smart Relay.

Command	Description	Response	Type
TEMPERATURE	Informs about temperature from all connected sensors as well as about configured temperature rise/fall thresholds (see Chapter 7.4). Information available in Celsius and Fahrenheit	TSensors1: 23C(73F), t-rise: off, t-fall:-12C(19F) BoilerTemp: 80C(176F) OutTemp: -4C/(24F)	Inf

7.3 Thermostat

Thermostat function allows control of a certain relay output by a certain temperature sensor. Since iSocket Smart Relay supports several outputs and several temperature sensors it becomes too complicated to configure all the relationships via SMS. That is why all major configuration is performed via USB (software available on our website). Once you have configured all thermostats via SMS you can only enable/disable thermostat for a particular output and request thermostat statuses (see table below).

The interval between temperature readings from sensors is one minute, however it might be more in the case where a few sensors are connected to one bus. Please note, that some deviations in measurements are possible in a fast changing temperature environment and the sensor might not be suitable for such an environment. However, we have introduced a special technique which compares measurements and makes corrections, which is why in some circumstances the reading will take a longer time.

Command	Description	Response	Type
THERMOSTATONRELAYx or THERMOSTATONAliasName	Activate thermostat for certain Relay (output) by its number or its alias name.	Thermostat for Relay1 (Boiler) is working now. Mode: Heating Off-temperature: 90C/194F Controlled by sensor: BoilerTemp	Ctrl
THERMOSTATOFFRELAYx or THERMOSTATOFFAliasName	Disable thermostat	Thermostat for Relay1 (Boiler) was disabled!	Ctrl
THERMOSTATS	Information about thermostats configuration	Thermostats R1: off R2 (Boiler): Heating 90C/194F (BoilerTemp) R3: off	Inf

7.4 Temperature Monitoring – Notifications, iSocket® Temperature Notifier

Before enabling alerts you must set up at least one number for alerts – see Chapter 5.4. There are several type of alerts related to temperature in iSocket Smart Software installed on your iSocket Smart Relay: switch-off alerts, temperature fall/rise alerts and when temperature sensor has failed.

- **SWITCHOFFALERTS** – enable SMS sending when “switch-off” temperature is reached and a certain relay (output) was therefore deactivated. This just allows you to know that a certain output was deactivated (relay was switched off) and shows at which temperature this happened. Note! It will send an alert every time the “switch-off” temperature was reached, so this event could be too often during the work of thermostat.

- **TSENSFAILALERT** - send alert if some temperature sensor has failed or a reading problem occurred on an active temperature sensor. Only one alert will be sent until you change something in thermostat settings or some new failure occurred.

These two types of alert are related to the thermostat and work only if thermostat is enabled. You can configure SWITCHOFFALERTS for certain outputs (relays) via USB only, however you can request the status of configuration via SMS (see table below). TSENSFAILALERT can be enabled both via USB and SMS since this is not related to a certain output (relay). If a temperature sensor has failed, then the corresponding thermostat will be disabled automatically.

NOTE! When a thermostat was deactivated because of temperature sensor failure or when you disable a thermostat manually, the relay will remain in the same condition as it was just before thermostat was disabled. This means that disabling the thermostat won't change the previous status of relay and you must do it yourself if you need to.

Command	Description	Response	Type
TSENSFAILALERT=ON	Enable sending alerts if some temperature sensor failed.	TSENSFAILALERT=ON - OK	30min
TSENSFAILALERT=OFF	Disable failed alerts	TSENSFAILALERT=OFF - OK	30min
TSENSFAILALERT?	Show current settings of TSENSFAILALERT	TSENSFAILALERT = (ON) ,OFF	Inf
SWITCHOFFALERTS	Show current settings for "switch-off" temperature reach alerts for all relays (outputs). Configuration of such alerts is possible via USB only. See more description in the text above	Switch-off temperature alerts R1: no R2 (Boiler): yes ...	Inf

iSocket® Temperature Notifier

iSocket® Temperature Notifier - this is a feature of the iSocket device which notifies you in the event of the room temperature falling below or rising above critical levels. This is another type of temperature alert which your iSocket Smart Relay can provide for you. This feature does not affect the thermostat and can work independently. This feature is not related to outputs, but to temperature sensors installed on the unit. Configuration of temperature fail/rise alerts for certain sensors is possible via USB only.

8. Date and Time

Date and time are used for logging alarms (Chapter 9.2) and to configure the scheduler (Chapter 11). The date can also be seen in the *STATUS* response. The device automatically sets the date as soon as you start to use it. No action is required! However, if for some reason at the beginning of the operation an incorrect date or time was set, then set it again manually or automatically. Automatic date/time settings are based on the GSM operator's network date/time. The device saves date and time settings for several hours after a power failure.

Command	Description	Response	Type
DATESMS	This message is automatically set with the date based on time taken from the SMS	DATE yy/mm/dd, hh:mm:ss+zz - OK	30min
DATE=yy/mm/dd, hh:mm:ss+zz	Manually set the date and time zz - is GMT time zone	DATE=yy/mm/dd, hh:mm:ss+zz - OK	30min
DATE	Request for actual date and time in device	DATE yy/mm/dd, hh:mm:ss+zz	Inf

9. Room Control by Sensors (Inputs)

With iSocket Smart Relay you can set up protection and control of your premises. Smart Relay has several digital inputs and each relay (output) can be controlled by any inputs. Both N/C and N/O types of sensors are supported. You can connect various sensors: motion sensor, door opening detector, smoke detector, etc. You can give a personal name (alias) to each sensor for simple recognition (see Chapter 4.3). You can set up a particular time for which certain relay should be activated when a sensor is triggered. Since iSocket Smart Relay supports several outputs and several inputs it becomes too complicated to configure all relations via SMS. That is why all configurations are performed via USB (software available on our website). Once you have configured the relationships via SMS you can only activate/deactivate the Alarm Function and get information about input statuses as well as about its configuration (see table below in the section 9.1). This User Manual does not contain information about advanced technical aspects of wiring the inputs. For this information refer to the Installation Guide (Document N°1) available from our website.

9.1 Alarm Function & iSocket® Alarm Notifier

We assume that all sensors have been connected and configured for you by a specialist. Now when you leave the home you can activate the Alarm Function. The Alarm Function should be enabled for the input which you wish to monitor. You can only enable the Alarm Function for certain inputs or for all of them together (see table below). Now, when the sensor is triggered the event will occur according to configuration. Before entering on returning home you need to deactivate the Alarm Function. The following table lists all the SMS-commands needed for the above. If you wish to receive the alerts when the sensor is triggered please read about the iSocket® Alarm Notifier feature below.

Command	Description	Response	Type
ALARMiONINPUTx or ALARMiONAliasName	Switch certain input to standby mode (activates the "Alarm function" for it) by the number of the input or by its alias name	Alarm Function for Input1 (DoorSensor) is enabled! Sensor type: NC Alert: Off Controlled Relays: Relay1(Horn) Relay(s) activation time: 90s	Ctrl
ALARMiOFFINPUTx or ALRAMiOFFAliasName	Deactivates standby mode for certain input (if sensor was triggered it will not be stated)	Alarm function for Input1 (FireSensor) was disabled!	Ctrl
ALARMiON	Activate Alarm Function for all inputs	Alarm function for all inputs was enabled!	Ctrl
ALARMiOFF	Disable Alarm Function for all inputs	Alarm function for all inputs was disabled!	Ctrl
STATUSINPUTS	Information about Alarm Function statuses for all inputs	Alarm Function/Alarm status i1: off/no activity i2 (MotionSensor): off/active!!! i3 (FireSensor): on/ no activity ...	Inf
ICONFINPUTx or ICONFAliasName	Information about certain input configuration	Input 1 (DoorSensor) / NC Alert: SMS Controlled Relays: Relay1(Horn) Relay(s) activation time: 90s	Inf

NOTE! The unit doesn't see whether the sensor is connected to the input or not. If you enable Alarm Function for some inputs with no sensor there, then the alarm for N/C configuration will be activated since circuit is open. The same alert will be sent if someone cut the cable of the N/C sensor.

iSocket® Alarm Notifier - a feature of the iSocket device which will notify you in the event of a break-in and some other case when sensor was triggered. You can receive notifications in various ways. iSocket Smart Relay can call you or send an SMS when the sensor is triggered. You can also be informed by SMS on each change of sensor's status (change of logical value).

To enable such notifications you must setup at least one number for alerts (see Chapter 5.4). If you have configured notifications by SMS the device will send messages to all numbers. If call alerts are configured, the device will call you within about 20 seconds. If you don't pick up after 20 seconds the device will try to reach the next number on the list. The device will only try to call each number once. The call-notification cycle is considered complete as soon as someone answers or hangs up. If no number is reached during the call-cycle, the device will send messages to all numbers, thus completing the notification cycle. SMS-notification cycle is considered complete as soon as all messages have been sent by the device. Therefore the most important numbers for notifications have to be placed at the beginning of the list.

Only one alarm within 60 seconds is indicated for each input. This means that if two (or more) sensors on one certain input were activated within one minute, you will only get the one alert for this input. During the notification cycle the device will not detect new sensor triggering on that input (however it will continue detect alarms on other inputs). The device will be ready to detect sensor activity on triggered input no later than one minute after completion of the notification cycle for this input. If the sensor is still active at this time the device will start a new session of notifications.

For these reasons the alert by SMS is the ideal option for motion or vibration sensors, which changes its logical "0" to logical "1" value and back to "0". In this case only one alert is generated and you receive a notification. However, this setting is not suitable, for example, for door, smoke or gas sensors which change their logical state from "0" to "1" and stay in this state. Since they remain in this state you will receive endless alerts until you deactivate the Alarm Function. For sensors that change their status and stay in that status, the option "SMSCHANGE" was designed. With this configuration you will be notified only once - when a logical value is changed. **Configuration of alerts is available via USB only.**

When several different inputs are triggered and the alert was configured by SMS you will get an SMS notification for each input one by one and the messages will show which input was triggered at what time. However if alert by call is configured and several inputs are triggered within one minute, you will get only one collective call. Please do not use the call type of alerts too much for different inputs, otherwise you could miss important alarms, since the unit cannot send messages when it is busy with calling. Note, call doesn't provide information as to which input was triggered, it is just a call. Thus we recommend you use the SMS type of alerts.

9.2 Alarm Logs

You can read alarm logs which record sensor activity. The device keeps the last 10 events sorted by time. One of the simplest ways to use this feature is to monitor people entering the room (when room was visited).

Command	Description	Response	Type
ALARMLOGINPUTx or ALARMLOGAliasName	Show alarm logs for certain input	Alarm log for input1 (DoorSensor): 13/01/04,14:12:15 (act) 13/01/05,16:16:10 (act)	Inf

10. Microphone and Room Listening

Please note that the illegal collection of information is prohibited in most countries. The microphone feature may only be used for lawful purposes. For instance, you can use the device as a remote listening station. If this device is installed in a room and the alarm is triggered in your absence, you can call the device and listen to sounds emanating from the room. Each time the device calls you (for example, sensor triggering) the microphone is activated when you pick up the handset. In the standard configuration of the iSocket Smart Relay we do not provide a microphone since we assume that in most case the unit is installed in a closed electric cabinet where no sound will be detected. For Smart Relay with microphone please contact your distributor.

Command	Description	Response	Type
MICLEVEL=15	Setup mic level (value from 0 to 15)	MICLEVEL=15 - OK	30min
MICLEVEL?	Inform about MICLEVEL value	MICLEVEL= 15	Inf
CALLBACK	If you send this SMS to the device, then it will call you back. This is convenient if you do not want to spend money on your own number. The device hangs up after about 30 seconds if you not pick up the phone	Call-back to your number if it can be recognized	Ctrl

Remember that you are not able to execute **CALLBACK** if the security number list or password protection is not configured (Chapter 5.1, 5.2)

11. Scheduler

The relays can be controlled in the automatic mode, based on pre-scheduled rules. Some other commands could be executed at pre-defined intervals. For example, enable/disable Alarm Function or regularly send status of the inputs and outputs, temperature information, etc. Information about statuses is sent to the alert numbers – see Chapter 5.4 for configuration. The schedule accepts a maximum of 20 rules.

Command	Description	Response	Type
SCHEDULER+hh:mm,day,action	This command adds a new rule for a specified time valid for all days within a week	SCHEDULER+hh:mm,*, ON - OK	Ctrl
SCHEDULER-hh:mm	Delete record for configured time	SCHEDULER-hh:mm - OK	Ctrl
SCHEDULER-ALL	Remove all tasks	SCHEDULER-ALL - OK	Ctrl
SCHEDULERS	Request for scheduler configuration	11:59,*,AON	Inf

* = any day, 1=Monday, 2=Tuesday, 3=Wednesday, 4=Thursday, 5=Friday, 6=Saturday, 7=Sunday
Hours and minutes must be typed with first zero (so "08" and not "8").

Actions:

ONRx=Turn on certain Relay by its number

OFFRx=Turn off certain Relay by its number

PULRx=Send pulse to certain Relay by its number

AONIx=Activate Alarm Function for certain input by its number

AOFIx= Deactivate Alarm Function for certain input by its number

TONx=Activate thermostat for certain relay by its number
 TOFFx= Deactivate thermostat for certain relay by its number
 TEMP= Send information about temperature (TEMPERATURE command execute)
 RSTAT=Send status of Relays (command STATUSRELAYS execute)
 ISTAT=Send status of Inputs (command STATUSINPUTS execute)
 SIGN=Signal quality report (command SIGNALREPORT execute)

Examples:

SCHEDULER+08:00,*,ONR1 Turn on Relay1 every day at 8:00
 SCHEDULER+20:30,*,OFFR8 Turn off Relay8 every day at 20:30
 SCHEDULER+09:00,1,AONI2 Activate Alarm function for Input 2 every Monday at 09:00
 SCHEDULER+18:00,5,TOFF2 Disable thermostat for Relay2 every Friday at 18:00
 SCHEDULER+17:00,6,TEMP Send temperature information every Saturday at 17:00

12. Status After Resumption of Power Supply

These settings are stored in non-volatile memory and are not upset by power supply interruptions. You can install power resume mode for each relay separately via USB. By SMS you can only change the mode for all relays in the same time. The option "REMEMBER" is the factory default for all relays and is suitable for most configurations, so you probably will not need to change it.

Command	Description	Response	Type
POWERSTATEALL=REMEMBER	The device will remember the state of all relays and all relays return to its state after the resumption of power supply to the device	POWERSTATEALL=REMEMBER – OK	30min
POWERSTATEALL=ON	All relays are always turned on when resuming power supply to the device	POWERSTATEALL=ON – OK	30min
POWERSTATEALL=OFF	All relays are always turned off when resuming power supply to the device	POWERSTATEALL=OFF – OK	30min
POWERSTATES	Information about power resume configuration	Resume power config R1: ON R2 (Boiler): REM	Inf

13. Original Factory Settings

You must use the Function Button available under the top cover of the device (see Chapter 1) for the reset procedure. Make sure that device is powered and the SIM-card is installed while you are doing reset. Make sure that the device is not currently processing any messages or alarms.

NOTE! All your personal settings will be erased during this reset procedure

To reset the device, press this button and hold it. After 5 seconds you will see how both PWR and FUNC indicators will light permanently. **Continue to press the button.** After another 8 seconds these two indicators will start to blink simultaneously once a second. **Only now, when PWR and FUNC indicators are blinking once a second together, you can release the button.** If you have done everything correctly, the resetting procedure will begin. The GSM indicator will stop shining at that moment. The PWR indicator will continue to shine. The FUNC indicator will start blinking every second showing that it is clearing the memory. This will take about 30-60 seconds. Please be patient and wait the unit starts again. Your device is now returned to the original factory configuration.

See VIDEO which demonstrates how to reset device to defaults:
<http://www.isocket-smarthouse.com/video/reset/>

Default factory settings

Relays –switched off
 Alarm functions– not activated, Inputs N/O
 Thermostats – not activated
 No any alias names are configured
 Time of a pulse – 2 seconds
 Scheduler – empty
 Power state - remember
 SALDOUMS – not pre-installed
 ERROR=ON
 PASSWORD=NO
 MICLEVEL=15
 TSENSFAILALERT=ON

RING=NOACTION
 RINGCONFIRM=ON
 RINGCONFIRMTYPE=SMS
 SECLIST=OFF
 SMSCONFIRM=ON
 SMSCONFIRMUNAUTH=OFF
 RENEWINTERVALPW=NO
 RESTARTIME=5
 DCALERT=ON
 ACALERT=OFF
 BATALERT=OFF
 BACKUPLIMIT=DC

14. LED Indicators

The LED positions were described in Chapter 1. Below we list possible LED modes.

PWR No light Lights constantly Blinks slightly: 2sec on/0.2sec off Blinks slightly: 2sec off/0.2sec on Blinks 4 times per second then lights 2 seconds Blinks very fast (4 times per sec)	No power on device Input power to device is OK Battery charging in process Device is powering from the built-in battery, so discharging (“backup mode”) Sim card problems (missed, incorrect placed, PIN protection is enabled) An error or possibly a problem with sim card (see also Annex B)
GSM Blinks every second Blinks every 3 seconds	Not logged to GSM network yet, searching (the same blinking if PIN protection still activated) Logged to GSM network
FUNC Light constantly Blinks 1 times per second Blinks very fast (4 times per sec)	Microphone is active now Alarm Function is enabled, inputs are not in active status Some input in active status
PWR & FUNC shine together PWR & FUNC blink together PWR & FUNC blink alternately	Ready for reset (see Chapter 13) Reset will start now after releasing the button (see Chapter 13) Shows that unit is going to shut down (see Chapter 17)

15. Credit Information and Subscription Management (experimental)

NOTE! Correct operation of any experimental features cannot be guaranteed. We reserve the right to remove these features in future versions of devices. The absence or incorrect function of these features on your device will not be covered by warranty.

You can get SIM-card credit information. Not all operators provide such service. With prepaid cards this service is usually available. For the monthly mobile subscriptions it is not available. You can also activate some UMS codes remotely.

Command	Description	Response	Type
SALDO	Information about balance (SALDOUMS must be pre-installed)	Response from mobile operator	Inf
SIMCARD*X#	To manage your subscription by UMS codes	Response from operator	30min
SALDOUMS=*X#	To install UMS code for balance check. For ex., SALDOUMS=*100#. Ask UMS code from your mobile operator	SALDOUMS=*100# - OK	30min
SALDOUMS=NO	Remove UMS code for balance from memory	SALDOUMS=NO - OK	30min
SALDOUMS?	Information about SALDOUMS settings	SALDOUMS: *100#	Inf

16. Version Information

Command	Description	Response	Type
HARDWARE	Reports the name of the product and the version of the hardware	iSocket Smart Relay, Hardware v1.1	Inf
SERIALNUM	Reports the serial number of the device	S/N: 12345678987654321	Inf
FIRMWARE	Reports the version of the firmware	(c) iSocket Systems, v1.0.0	Inf

17. iSocket® Power Notifier, Input Power Control & Battery Management

The iSocket Smart Relay was designed to give you the freedom to choose what power source to use. You can provide 12V DC power from an AC-DC adapter in houses where AC network is available or you can power it from uninterruptible power source of 12V DC (for example, accumulator or DIN-rail UPS).

iSocket® Power Notifier - a feature of the iSocket device which will notify you in the event of a power failure and/or the restoration of the power supply. This feature is available if your configuration of iSocket Smart Relay has a built-in Li-ion battery (standard configuration for Smart Relay) and/or Voltage Sensor for 120VAC or 220VAC (optional). To receive such alerts you need to configure the number for alerts – see Chapter 5.4. Once this number has been configured you will receive messages whenever DC or AC power is interrupted and/or restored. The text of the message will indicate whether DC or AC power was failed and/or restored depending on configured settings (see table below).

17.1 "Backup Mode" Conditions

When the device is powered from a built-in backup battery after the main power supply (12VDC) has failed it is in so-called "backup mode" and the device may have limitations in some functions. The reasons for these limitations are different. AC power failure can also be a factor to be considered for "backup mode". More detailed aspects of backup mode limitations are explained in the Installation Guide (Document №1 for integrators) together with information about how to choose the proper configuration of the backup mode limitation for your application in the Configuration Guide (Document №2). **We do NOT recommend you change the BACKUPLIMIT setting without consulting the person who installed your unit for you, otherwise it may upset the correct configuration.**

If you try to execute an SMS command for a function which is limited in the backup mode you will get the message "The function is not available now! The device is working in limited backup mode". Some call actions and scheduler's tasks will be disabled. Please refer to the Installation Guide if you wish to get more information about these limitations.

Temperature sensors continue working in backup mode since they are powered from the backup battery and you can receive all information about temperature. It is useful because you probably want to know the temperature in remote place and take action accordingly. For example if temperature falls below some threshold and the power has still not resumed you may want to go to remote areas to take remedial action.

Would you like to see more features or is there something in our software or documentation that you dislike? You are welcome to send us your feedback!

<http://www.isocketworld.com/feedback/>

17.2 Battery Management & Related Settings

If your iSocket is equipped with a built-in Li-ion battery and/or Voltage Sensor you will find the next settings useful. **For all alerts the number should be pre-configured – see Chapter 5.4.**

Command	Description	Response	Type
BATSTATUS	Information about battery status	Mode: discharging Capacity: 70%	Inf
POWERSTATUS	Information about main DC power and AC power (checked by Voltage Sensor) presence	Main power 12VDC: OK AC power: OK	Inf
DCALERT=ON	Enable SMS sending when main DC power has failed or is restored. DC is considered to have failed when it has not been available for more than 2 seconds, and restored when it has been available for 3 seconds or more.	DCALERT=ON - OK	30min
DCALERT=OFF	Disable power failure/restore alerts. Final alert will arrive anyway (read note below)	DCALERT=OFF - OK	30min
DCALERT?	Information about DALERT configuration	DCALERT=(ON),OFF	Inf
ACALERT=ON	Enable SMS sending when AC power monitored by Voltage Sensor has failed or is restored. AC is considered to have failed when it has not been available for more than 2 seconds, and restored when it has been available for 3 seconds or more.	ACALERT=ON - OK	30min
ACALERT=OFF	Disable ACALERTs	ACALERT=OFF - OK	30min
ACALERT?	Information about ACALERT configuration	ACALERT=(OFF),ON	Inf
BATALERT=X,X,X	Send SMS when battery capacity falls below defined thresholds. It works only during discharge! Available values: 10,20,30,40,50,60,70,80,90. Values must be separated by comma. Example: BATALERT=10,80; BATALERT=30,40,50,90 It is possible that you could get an alert which is not exactly at the configured thresholds. Due to the nature of li-ion batteries, some variation is possible. Thus instead of 30% it might report 28% or 31% and so on. This is considered normal and is not an error.	BATALERT=30,60 - OK	30min
BATALERT=OFF	Disable BATALERTs	BATALERT=OFF - OK	30min
BATALERT?	Information about BATALERT configuration	BATALERT=40,80	Inf
BACKUPLIMIT=DC	Limitation backup mode by means of presence of main DC power. Please read below.	BACKUPLIMIT=DC - OK	30min
BACKUPLIMIT=AC	Limitation backup mode by means of presence of AC tested by Voltage Sensor. Please read below.	BACKUPLIMIT=AC - OK	30min
BACKUPLIMIT=OFF	No limitation in backup mode	BACKUPLIMIT=OFF - OK	30min
BACKUPLIMIT?	Information about BACKUPLIMIT setting	BACKUPLIMIT=(DC),AC,OFF	Inf

NOTE! Even if you have configured not to receive power failure alerts (DCALERT=OFF) you will get the final alert when the battery is almost discharged and the device will soon shut down. This alert will inform you: *"Low battery! The device will shut down now. You will receive a message after power is restored if these alerts are configured"*.

17.3 How to Switch Off the Device Totally (Switch Off the Battery)

After you switch off the main power supply to the device (or after power failure occurred) the device will continue to work from the built-in battery and you might want to switch off the device totally now, so switch off the battery. You also need to switch off the battery before storing it for a long time. Switching off the battery is possible with the Functional Button (see figure in the Chapter 1) as follows:

To switch off the battery, press the Functional Button and hold it for 5 seconds until you both PWR and FUNC indicators start to shine permanently. **RELEASE BUTTON NOW**, when you see that PWR and FUNC indicators start shining together. If you continue to hold the button for a long time the device will reset (see Chapter 13)! Do NOT hold button longer. If you have done everything correctly and the main power supply is removed from the device, then after you release the button indicators PWR and FUNC will start blinking alternately. **NOW YOU HAVE TO PRESS BUTTON AGAIN**. The device will be switched off soon after that. Note, if indicators PWR and FUNC did not start blink alternately after you released the button, this means that the main power is still provided to the device, so it means that device is powered not from built-in battery and that is why it cannot be switched off by this method. You must switch the main power supply off first! Make sure that the device is not currently processing any messages or alarms.

See VIDEO which demonstrates how to switch off the battery:

<http://www.isocket-smarthouse.com/video/batoff/>

There is an emergency method - not recommended - of switching off the device if nothing else helps. If for some reason the above procedure does not work for you, you can remove SIM-card from the unit and the unit will switch off the battery after about 10 minutes or less. Given, that main power was already removed from the unit. Please don't use this method in normal circumstances, because it can damage the SIM-card and even the unit.

NOTE! If device was deactivated for a long time for storage or transport, you must always switch off the battery and then remove SIM-card from the device. If you transport the device with SIM-card it may start occasionally, but removing the SIM-card will prevent the device from switching.

If you powered the device without SIM-card and then power it off very soon, the device will start to work for a short time from built-in battery, but it will shut down soon afterwards, because it will detect that the SIM-card is missing. Before shutting down, the PWR and FUNC indicators will blink alternately. However, if you continue to power the device it will show you the error by specific blinking of PWR indicator as soon as it detects that the SIM-card is missing (see Chapter 14). The only option now is to switch off the main power supply from the device, insert the card and start power again. Don't try to insert the SIM-card after the error was detected. Nothing will happen until you remove power from the device.

**Do you particularly agree, or disagree with anything in our software?
Give us your opinion: <http://www.isocketworld.com/feedback/>**

Annex A. Technical Data

Product	iSocket Smart Relay
Models Identification	<p>ISR<i>io</i>(RF)(M)(B)GSM(V/VUS)</p> <p><i>i</i> – amount of alarm inputs <i>o</i> – amount of outputs (relays) RF – optional support for RF-accessories (433Mhz) M – optional built-in microphone support B – optional built-in li-ion rechargeable battery V – optional AC voltage sensor (relay with coil 240VAC) VUS – optional AC voltage sensor (relay with coil 120VAC)</p> <p>If some option is not available on your model, none of the SMS commands and functions associated with these options exist on the device. Please refer to our website for a detailed comparison of the devices.</p>
Power Input (Supply Voltage)	<p>Recommended Operating Conditions: nominal 12V DC, minimum 11V DC, maximum 13V DC.</p> <p>Absolute Maximum Ratings (AMR): minimum 9V DC, maximum 15V DC. AMR are the values beyond which damage to the device can be caused or unstable operation may occur. Using the device at AMR is not covered by warranty.</p> <p>At least 1.5A power supply must be used. If you want to provide power for external sensors from the same source you must use a power supply with more current. Please note, we guarantee the function of the unit only with power sources purchased from or recommended by us.</p>
Power Consumption	<p>40mA in standby mode (Supply Voltage at nominal 12V DC) 140mA during charging of a built-in battery (Supply Voltage at nominal 12V DC)</p>
Output Relays	<p>Turn on/off or restart appliances by at least 7 different relay outputs:</p> <p>Relay 1, Relay 7 Type: NO/NC Rating of relay: 3A 125VAC/24VDC, resistive load Approved rating of load: 2A/24VDC (for alarm low-voltage equipment)</p> <p>Relay 2, Relay 3, Relay 4 Type: NO Rating: 7A/125VAC, 5A/250VAC, 20A/14VDC, resistive load Approved rating of load: 5A for AC</p> <p>Relay 5 Type: NO Rating: 10A 125VAC/250VAC/28VDC, resistive load Approved rating of load: 5A for AC</p> <p>Relay 6 Type: NO Terminal COM can be used as fused 12VDC/0.5A output (provided that power supply with sufficient current rating is used to power the unit). Fuse is shared with internal power supply! Connection of AC is not allowed for this Relay. See examples of use in the Installation Guide (Document N°1).</p> <p>Approved rating of load is the confirmed guaranteed load. This is the maximum recommended load when using the full rating of relays. In most cases we would recommend that you use contactors for heavy load and use relays only as activator for contactor's coil. No fuse protection installed for relays. Circuit breakers must be used, MANDATORY! See Installation Guide (Document N°1) for more information.</p>
Alarm Inputs	<p>At least 5 alarm inputs for external sensors (motion detector, door opening, fire, gas leakage, etc.). iSocket® Alarm Notifier feature – alarm notification over external</p>

	<p>sensors actuation Recommended Operating Conditions: nominal 12V DC, minimum 11V DC, maximum 24V DC.</p> <p>Absolute Maximum Ratings (AMR): minimum 9V DC, maximum 28V DC. AMR are the values beyond which damage to the device can be caused or unstable operation may occur. Using the device at AMR is not covered by warranty.</p> <p>See more information about inputs' voltage in the Installation Guide (Document N°1)</p>
AC Voltage Sensor (optional)	Relay with 120VAC or 240VAC coil for connecting AC line to it. IMPORTANT NOTE! Read label on the device and see model identification above. If you connect 220VAC to the coil which supports only 120VAC then the relay of the Voltage Sensor will be damaged!
Indicators	PWR, GSM, FUNC; installed on the board, hidden under the top cover of device
SIM socket	Hinge-type, SIM-card 3V
GSM / antenna	4 bands: 850/900/1800/1900MHz, external antenna iSocket® Online 24/7 – unique feature which gets the device back online even after a break in the GSM-network
RF-accessories (optional)	Wireless sensors, wireless relays, wireless temperature sensors and other wireless units work on 433Mhz, manufactured by iSocket Systems; external antenna
Temperature control	Support for 5 external digital temperature sensors -55°C to +125°C (-67F to 260F) on one bus. ±0.5°C accuracy from -10°C to +85°C. Built-in thermometer and thermostat, temperature measurement provided by SMS, turn on/off equipment by thermostat's settings. iSocket® Temperature Notifier – send temperature rise/fall notifications.
Built-in rechargeable battery (optional)	Units work several hours after power failure and supports temperature monitoring even after power cut-off. iSocket® Power Notifier – sends power failure / power restored alerts.
Security	Password, phone number list, limited configuration interval
Scheduler	Scheduling the following functions to be executed at a particular time: turn on/off of certain relay, activation/deactivation of Alarm Function, enabling/disabling of thermostats, sending temperature information, sending status of inputs and outputs, providing quality report.
Operation conditions	<p>0C – +40C (32F – 104F), indoors, dry conditions</p> <p>Important notice! According to technical specification most SIM-cards cannot be used in cold conditions. A sim card is not supplied with the device and is therefore not a part of the device. You cannot turn on the device if there has been an abrupt change of conditions from cold to warm or vice versa.</p> <p>The devices which are fitted with a Li-ion battery is strictly forbidden to use outside the specified temperature!</p>
Mounting	35mm DIN rail (EN50022), 5 modules
Weight Net/Gross*	Standard non-RF model ISR57BGSM 256g(0.654lb)/443g(0.977lb). *Gross weight includes accessories and packaging.

Annex B. Troubleshooting

Please read the safety instructions carefully (Chapter 2) as well as the warranty terms (Annex C). You may not repair the device yourself. Here are descriptions of the possible problems and their rectification. Only the simplest problems are mentioned. More information can be found on the device's website www.isocket-smarthouse.com. Some of the described situations may not be a malfunction. If you are unable to eliminate any problem yourself, then, during the warranty service, you can take the device to the store from which you bought it. Post-warranty service is provided by the manufacturer or authorised service centres. Some advice can be given by e-mail. When contacting sure to specify the device model and firmware version (you can check this by sending the SMS-commands FIRMWARE and HARDWARE to device).

Please read Chapter 14 for information about the indicators. Indicators can signal different faults.

Possible malfunction: No lights on indicators after providing power to the device.

Possible solution: Please contact the person who carried out the installation for diagnosis of the problem.

Possible malfunction: The PWR indicator is on, but the device does not accept any commands.

Possible solution: Make sure that all indicators are correctly lit (see Chapter 14), the SIM-card is inserted correctly, PIN-code authorisation is removed on the SIM-card and the GSM network is available.

Possible malfunction: Some devices connected to outputs are not turned on/off, although I receive the commands.

Possible solution: Perhaps certain relay was damaged or other problem. Contact the person who carried out the installation.

Possible malfunction: Command was sent, but no response and nothing happens

Possible solution: The iSocket could have lost contact with the GSM-network or there is no electricity in the home network. If you're away from the device and cannot verify the existence of electricity in the home network or the GSM-signal you can carry out a simple test. Try to call to the device's number. If this works, you will hear a ringing tone instead of a "subscriber not available" signal (only if RING=NOACTION, Chapter 4.2). If you are sure that the device is online, you need to look for other possible problems.

One possibility is that the phone number from which you send a message is unauthorised and therefore you will not receive any messages and no action will be carried out (Chapter 5.1).

A mistake in writing the command could have occurred and error suppression could have been set (ERROR=OFF). In this case you would not know if you had made a mistake in the command. Check your outgoing messages to see what command was sent and check that it was written correctly, according to the manual. Read about other potential problems below.

Possible malfunction: The PWR indicator reports an error (blinking 4 times per second)

Possible solution: If the PWR indicator blinks 4 times per second, even only occasionally (e.g. at the start of the device), it is likely that there is some problem with the sim card. Check that the sim card in the device doesn't contain any data (such as stored phone numbers and messages). If the sim card has data on it then clean it using your cell-phone. Also try using another sim card. Make sure you are using a modern sim card.

If the PWR indicator is blinking constantly and the blue GSM indicator is always off, there is probably a problem with the power of the GSM module. Contact the person who carried out the installation.

Possible malfunction: The phone from which device was controlled has been lost, but the number was recorded in the list of allowed numbers. So I cannot control the device any longer.

Possible solution: The device must be reset to the factory defaults and set again with another phone. (Chapter 13).

Possible malfunction: The device is behaving strangely – e.g. no response to commands.

Possible solution: Try to reset to factory default and configure the device again (Chapter 13). You can also check that the sim card in the device doesn't contain any data (such as stored phone numbers and messages). If the sim card has data on it then clean it using your cell-phone.

Possible malfunction: The device doesn't send power failure and/or other alerts.

Possible solution: Make sure that the number for alerts is installed properly – pay attention to all notes given in the Chapter 5.4. If you don't receive only power failure alerts, but all other alerts are OK, most probably it is a battery issue. Firstly make sure that your unit has a battery. Lithium-ion batteries are subject to a natural ageing process. When the capacity falls below a critical value you will not be able to receive the power failure alerts. If this happens during the warranty period you have the right to get a replacement battery for your product. If you use the device outside the specified temperature range this can also be the reason for not receiving power failure alerts.

Possible malfunction: The device loses GSM signal often, GSM indicator is off sometimes.

Possible solution: First please check the behaviour of the GSM indicator. If you see that it is going to turn off for a short time after few seconds since device was powered on then the most probable reason is a weak power supply. GSM module in burst-mode (when it search network or sometimes when sending message) needs up to 2A. Thus if you use weak power supply the module will be switching off and signal will be lost regularly. We only guarantee work with power supplies purchased from us or recommended by us.

Annex C. Limits of Warranty and Liability

Our products are subjected to stringent final quality inspection. iSocket Systems guarantees that your device is free from material and production defects. iSocket Systems will not be liable for any direct or indirect material loss to the owner or other persons caused by use of this device. This warranty only covers production defects. The rights and benefits under this guarantee are additional to your statutory rights which are not affected by this guarantee. If your device produces any of the defects mentioned above within a period of 12 months after purchase, iSocket Systems offers, at its discretion, either a free-of-charge repair or exchange. The guarantee applies only for you as the original end customer. It does not apply to damage to fragile components such as the housing, damage caused by improper use, culpable damage, damage caused by breakage, heat, water or acts of God, damage caused by unauthorised tampering with the device or exposure to chemicals, damage caused by overloading in the house power network. The life cycle of the relays depends on how often they are turned on and off, but iSocket Systems guarantees their function at least during the warranty period if technical parameters are maintained and only qualified personnel have done the installation. Any replacement hardware product will be warranted for the remainder of the original warranty period, or thirty (30) days, whichever is longer or for any additional period of time that may be applicable in your jurisdiction (on condition that the device was purchased from an authorised distributor in this country). iSocket Systems does not guarantee the preservation of personal settings on the device after its repair. Repair or replacement may involve the use of functionally equivalent new or used parts. Replaced parts become the property of iSocket Systems. The warranty will be lost if safety instructions not complied with (see Chapter 2) when using the device, and if the conditions of use were violated. The warranty will be lost if installation was done not by qualified personnel who has proper licenses for such works. In the case of contact for warranty service the approve that work was performed by qualified personnel must be provided. iSocket Systems disclaims any responsibility for damage to health or property suffered as a result of using this device and failure to comply with safety instructions. Improper use, disassembling or product modification causes warranty loss. iSocket Systems does not guarantee that this product will provide uninterrupted operation of the controlled equipment; this device is not an uninterruptible power supply (UPS). This product is not designed for safe disconnection of the controlled equipment from power network; the device is not equipped with a residual-current device (RCD). Correct function of the switching function all that is guaranteed. The device is intended only for domestic private non-commercial use. Security features in this device, as well as functions related to temperature control cannot be considered as a substitute for professional systems. iSocket Systems assumes no liability for damage to property in connection with the operation of these functions. iSocket Systems provides protection against unauthorised access to the device, but gives no guarantees regarding the impossibility of such access and is not responsible for the consequences of such lack of access. iSocket Systems reserves the right to modify the device and its software without further notice. Differences in the software not covered in these instructions are acceptable and not considered as defects and cannot be a matter for warranty service. Releasing new software, including new functions, is not an excuse for its replacement under warranty terms and can be done for an additional fee. Illegal use of remote listening option and the illegal extraction of information is a violation of the law in most countries. Before using this function consult with a lawyer. iSocket Systems categorically prohibits the use of this device for unlawful purposes and is not responsible for illegal use of the device. Please make sure that mobile network is available in the area. Bad coverage is not a warranty matter. Please ensure that mobile phones are permitted in the area before operating the unit (eg, hospitals, petrol stations, etc.). If the use of a mobile phone is forbidden, do not use the device, as it can have negative influence to other electronic systems. To get warranty service, you must provide proof of payment, this guarantee and prove that the unit was installed by qualified personnel. The guarantee must be duly filled in and must specify the serial number of the device, if it does not contradict the legislation of the country where product was legitimately purchased.

Annex D. Contacts

The most current contact information about our company is supported on the official website www.isocketsystems.com. The most current product information can be found on the official website www.isocket-smarthouse.com. You can send us email via the form on the page <https://www.isocketworld.com/contacts/>

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