NeoGSM-IP – alarm panel with build-in automation and WIFI.

User manual.

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WARNINGS

For safety reasons, the device should only be installed by qualified specialists.
Before starting the assembly, read the instructions above, the connection operations should be carried out without the power supply connected.
Do not turn on the power of the device without an external antenna connected (starting the device without the antenna connected may damage the transmitting circuits of the phone and void the warranty!).
Do not interfere with the construction or carry out independent repairs.
Protect the electronics against electrostatic discharge.
In order to meet the requirements of LVD and EMC, the following rules must be observed: power supply, installation, shielding - according to the application. The device is a source of electromagnetic waves, so in specific configurations it can interfere with other radio devices).
The Ropam Elektronik company is not responsible for the malfunctioning of the GSM network and the consequences of possible technical problems.

WEEE LABELING

Waste electrical and electronic equipment must not be disposed of with normal household waste. According to the WEEE directive (Directive 2002/96 / EC) applicable in the EU for the used electrical and electronic equipment, separate disposal methods should be used. In Poland, in accordance with the provisions on waste electrical and electronic equipment, it is forbidden to put waste equipment together with other waste marked with the symbol of a crossed out basket. The user who intends to get rid of this product is obliged to hand over the above-mentioned to the point of collecting used equipment. Collection points are carried out, among others by wholesalers and retailers of this equipment and communal organizational units conducting business in the field of waste collection. Proper implementation of these duties is important especially when there are hazardous components in the used equipment that have a negative impact on the environment and human health.

The control panel power supply cooperates with a 12V DC lead-acid dry battery (SLA, VRL). After the period of use, it should not be disposed of, but disposed of in a manner consistent with applicable regulations.

(Directives of the European Union 91/157 / EEC and 93/86 / EEC).

Table of contents

1. General description.

Thank you for choosing Ropam Elektronik products and solutions. We hope that our devices will meet your requirements and will serve you reliably for many years. The Ropam Elektronik company is constantly modernizing its products and solutions. Thanks to the update function, products can be enriched with new functions and keep up with the requirements set for modern property protection systems and home automation. We invite you to visit our website www.ropam.com.pl in order to obtain information about current versions. If you have additional questions, please contact us by phone or by email.

Properties.

The NeoGSM-IP alarm control panel with peripheral devices is a solution that integrates electronic burglary signaling system and building automation. Built-in GSM communicator allows remote control and control of the system. Thanks to the modular design, the system can be expanded and adapted to the changing needs of the user.

Control panel has unique functions compared to competing products and is the most functional system on the market in its class, including:
- **2 independent zones** with two types of waking: full or night,,
- **8-32 programmable zones**, expansion by zone expanders, touch panels, Aero wireless system,
- **8-24 programmable outputs,** expansion by output expanders,
- support for up to 4 touch panels (TPR-4x / 4xS series) or touch keyboards (TK-3x),
- built-in GSM modem and WIFI module (ETH EXP-LAN option),
- notifications of type: **SMS / CALL / E-MAIL / PUSH**,
- mobile application support: RopamNeo Alarm Control, for online supervision via the Internet,
- IP communication: WIFI / LAN basic channel, GPRS backup channel (automatic switching),
- Internet control for the IP channel: support for permanent IP / domain or RopamBridge server (any Internet),
- Internet control for the GPRS channel: support for the encrypted RopamBridge server ('Internet router by ID'),
- 4 timers with a calendar, for control and automation,
- operation of temperature and humidity sensors (wired, wireless), 'Room thermostat' function,
- cooperation with the **-ECO** power supplies, energy and cost savings,
- advanced logic functions and software time relays, LogicProcessor,
- local programming via **micro USB or WIFI / ETH**,
- **software remote** via the RopamBridge server (GPRS or IP),
- a version in the housing for the DIN rail is also available.

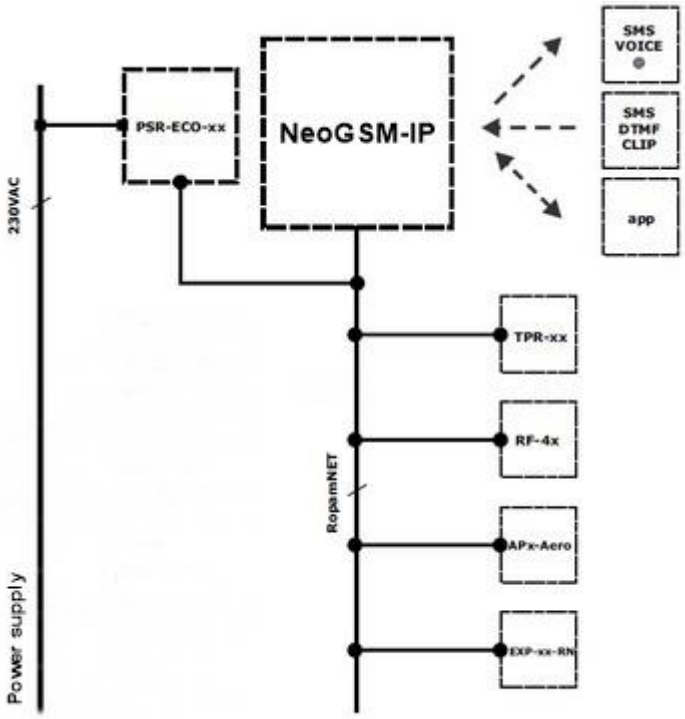
Appliance.

The alarm system built on the basis of NeoGSM-IP series alarm panels, TPR-xx touch panel and other additional devices is an ideal solution for residential buildings and small commercial facilities. Modern design, proven touch panel technology with a spectacular color LCD display is ideal for incorporation in most interiors and rooms. Intuitive and clear interface, I make controlling the alarm system has never

been as easy as with TPR-xx. The touch panel in combination with the control panel allows you to build a fully functional alarm system.

NeoGSM-IP control panel also allows you to create simple home automation applications with remote control via SMS / CLIP and Wifi / Ethernet.
Flexible functions also allow for use in systems that use binary signal control, temperature, visual verification is required and information transfer is based on SMS, VOICE, e-mail.

• building automation systems integrated with the NeoGSM-IP system,
• smart home, home automation,
• electronic burglary and assault signaling systems,
• signaling systems: fire, gas leaks, flooding, power supply status, UPSs,
• remote control of electrical devices,
• intelligent lighting,



Warnings.

Ropam Elektronik devices are part of a full alarm system, whose effectiveness depends on the quality and technical condition of all devices (detectors, signaling devices), cabling, etc. included in the system. The user is obliged to periodically test the operation of the alarm system. It should be checked whether the control panel reacts to the violation of individual detectors (PIR, reed switches, etc.) or signaling devices (external and internal) and notifications. The detailed method of system control is determined by the installer that the system has designed. Periodic system maintenance is recommended (with device status check, back-up power supply, system operation, messaging, etc.).

Ropam Elektronik is not responsible for the correct operation of operators and GSM network infrastructure used for notification of alarm states and remote control. It is recommended to use a GSM operator that guarantees coverage of min. two BTSs of a given system location with GSM communication.
We do not recommend using operators using national roaming!

In addition, it should be noted that services guaranteed by GSM operators are voice transmission services (VOICE) and not SMSs, that is why important information should be transmitted through voice calls and possibly accurate identification of the event takes place in an SMS (eg VOICE + SMS, CLIP + SMS).
In addition, we recommend using such services and subscriptions available on the market that guarantee correct operation (minimizing the human factor, eg blocked outgoing calls due to lack of funds on the account), allow full configuration of GSM bus occupancy (eg, exclusion of advertising services not available in services pre-paid). In addition, it should be noted that services guaranteed by GSM operators are voice transmission services (VOICE) and not SMSs, that is why important information should be transmitted through voice calls and possibly accurate identification of the event takes place in an SMS (eg VOICE + SMS, CLIP + SMS)..

For **e-mail transmission** services, it is recommended to create an independent e-mail account (eg alarm@domena.pl) from a verified provider of e-mail accounts. Sharing data to an SMTP server from private accounts may result in access to these accounts by unauthorized persons.

Requirements for SMS, DTMF control.

To operate via SMS mobile phone, the smartphone must encode SMS: **GSM or UNICODE alphabet** other formats are not supported!

To control the DTMF phone, the smartphone must be able to generate DTMF tones during a phone call.
A single DTMF code (pressing the sign) should last for a minimum of 0.5s.

2. System operation.

TPR-xx touch panel.

TPR-4W/WS

TPR-4B/BS

The TPR-xx touch panel is a modern element of control and alarm system control.
TPR-xx is based on a color TFT LCD display with a touch panel.
TPR-xx allows for intuitive control and control of the alarm system, thanks to the interactive interface using pictograms and text prompts, navigating and using functions is simple and does not require the user to remember the function code, eg strong vigilance, blocking the sensors..... Control panel has

pictograms on which it continuously presents all important information, including standby, power status, GSM range, GPRS, temperature.
When designing the panel and interface, we were guided by the following slogan:

"Technology for huma, not human for technology".

Main window.

In normal mode, the main window is displayed on the touch panel. TPR-4 panel has the ability to define two user screens with any configuration of icons on the screen. In the case of inactivity (about 160 seconds), the screen goes into the screensaver mode:
- calendar with date and time, temperature value from system sensors,
- digital photo frame.

In the screensaver mode, information about the armed mode is hidden and the power supply, alarm and malfunction status is displayed (by means of LED diodes). **Exiting the screen saver mode can be protected by a code. If a code is required, the numeric keypad will be displayed, enter the code and confirm #. If the sequence is correct, the panel will display the main window. In this mode, counting of incorrect attempts to enter codes may also work** (if global counting is set, for attempts to bypass the system by guessing codes)**.**

Description and functions of icons.

Icons pictograms are assigned to individual system functions, the meaning and operation of which are described below. TPR-4 touch panel allows you to place any icons anywhere on the two panel screens and some of them assign multiple actions.

Icon	Description
	Full system utilities. Possible (set in NeoGSMIPManager): - selection of zones - required code - displaying the zone selection screen

Icon	Description
	Disarming the system. Possible (set in NeoGSMIPManager): - selection of zones - displaying the zone selection screen
	Night time system. Possible (set in NeoGSMIPManager): - selection of zones - required code - displaying the zone selection screen
	Controlling the outputs: Possible (set in NeoGSMIPManager): Display of outputs to be available for control
	Preview of the zone status (violation, tamper, OK).
	Building plan preview (requires a MicroSD card with files: plan1.bmp to plan4.bmp). Possibility to edit the layout of detectors on the set from the service menu level in the TPR-4 panel.
	Giving, changing, deleting user codes and names (up to 32).
	Menu of user and service settings.
	Blocking an input or group of inputs. Set in the NeoGSMIPManager: - entry number - group blocking of zones

System operation.

Icon	Description
	- code request to confirm the block After disarming the entry system they are unlocked.
	View history of events in the system.
	Overview of system failures. If a system failure occurs, next to the icon on the right side a yellow dot will be displayed indicating the presence of a new failure in the system, you can check by clicking the triangle icon with an exclamation mark.
	Preview values for the analog input. Possible (set in NeoGSMIPManager): - scaling of voltage values to physical values, e.g. ° C,% Rh, lux, etc.
	Temperature chart from TSR-1 sensors connected to the system.
	Preview of the entrance. Possible (set in NeoGSMIPManager): - selecting the zone number - blocking the zone after pressing the icon (after disarming the entry system they are unblocked) - indication of the status from the PLC I / O module input
	Room thermostat. Possible (set in NeoGSMIPManager): - thermostat selection (No. 1 or No. 2).
	Controlling relay in touch panel.

System operation.

Icon	Description
	Controlling of control panel output. (1-24). Possible (set in NeoGSMIPManager): - output number - status indication according to zone - requiring a code to enable output
	Controlling control panel output. (1-24). 1 = white bulb icon 0 = dark bulb icon
	Controlling control panel output (1-24). e.g. roller blinds.
	Controlling the control panel output (1-24). e.g. roller blinds down.
	Controlling control panel output (1-24). e.g. gate.
	Controlling control panel output (1-24). e.g. a garage door.
	Enabling output group. Possible (set in NeoGSMIPManager): - number of output / outputs - requiring a code to enable
	Turning off output group. Possible (set in NeoGSMIPManager): - number of output / outputs - requiring a code to enable

System operation.

Icon	Description
	Humidity indicator - Aero radio sensors. Possible (set in NeoGSMIPManager): - list of displayed sensors (up to 4) - sensor number on the widget
	Humidity and temperature indicator - radio sensors of the Aero system. Possible (set in NeoGSMIPManager): - list of displayed sensors (up to 4) - display only temp., only% Rh or temp and% Rh
	Basic information about the system: Firmware of control panel, Panel firmware, Power supply to control panel and modem, Status of AP-IP module
	Panic
	Fire
	Single output control. Fan
	Single output control. Heater
	Single output control. Power supply

System operation.

Icon	Description
	
	Single output control. Sprinklers
	Wicket
	Single output control. Garden lights
	Single output control Plugin
	Single output control Left
	Single output control Right
	Single output control. Up

Icon	Description
	Single output control. Down

Status bar.

In the upper part of the LCD display there is a status bar, on which the system status is presented by pictograms. The bar is displayed in every window and menu.

Acoustic signaling.

Touch panel can additionally generate acoustic signals. Sounds marked with "service" can be optionally turned off or attached from the installer menu and "user" from the user menu.

one short at 0.2 seconds	signaling of pressed 'button' on the touch panel (service)
two short at 0.85 seconds	wrong code or command
two sets of four signals in one second	signaling of arming: full or night
one set of four signals within 0.5 seconds	signaling the disarming of full or night standby
one long every 1 second	signaling of countdown of entry / exit time (service)
one continuous signal modulated for 0.8 seconds	chime signal from the entrance (user, service)
continuous loud signal	alarm signaling in the system (service)

System operation.

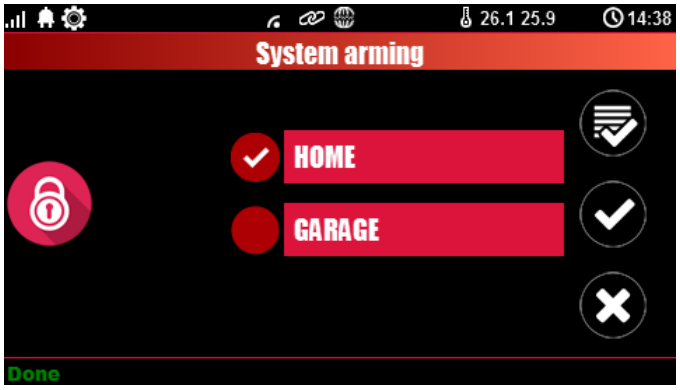
Basic operation of the system consists in pressing the button from the main window and following the instructions. Numeric keypad (fixed or random arrangement of numbers and characters - service) is displayed for functions that require confirmation with a code. For functions that require the use of letters and other characters, a full virtual keyboard (QWERTY) is reported. For selected functions an optional application without a code is available (designation: service).

Window type / Keyboard	Confirmation of the function	Exit from function
Numerical	#	*
Full	**ENTER**	**ESC**
Graphic		

Full keyboard: buttons	Function
0-9	number buttons
A-Z	alphabetic buttons
SHIFT	changing size of alphabetic characters
123	calling / hiding the numeric keypad
PL	calling alphanumeric buttons with diacritical signs (Polish)
Bspace	Backspace button, erases one character back
Space	Space button, space, space
Enter	change approval button
Esc	exit button from the keyboard without saving data

Arming full armed mode.

To activate the full armed mode, press 
- the numeric keypad will be displayed, enter the code and confirm #. If the sequence is correct, the control panel will display partitions selection window.
Select the selected partition (by pressing partition name) and confirm or select the all button.



- if the "quick exit" (service) option is activated, the control panel will start the countdown of the exit delay for the set partitions

Warnings, depending on the system settings (service):
- if the zones of the control panel are violated, a message will be displayed asking for blocking the zones:
"Block violated inputs? - YES / NO",

if the inputs are blocked from the menu, the following message will appear: "Violated inputs blocked". Zones violated and not blocked will be normally supervised when they return to normal (not affected). If the control panel was in the night-time armed mode, this state will change to stand-by mode (without disarming the night watch).
- if the system is signaled by a failure**:**
"Malfunction found, arm anyway? -YES/NO".
After confirming the arming, the exit delay countdown begins. Supervision over the detectors will take place after this time has elapsed.
If the control panel has the Aero system installed, supervision (status transfer) above these detectors will take place in accordance with the presence control interval, intervals: 30/60 / 90s (service).

Arming night mode.

In order to arm the night (supervision), ie the zone marked as "night" in the zone configuration (service), press  .
- if a code is required, the numeric keypad will be displayed, enter the code and confirm #. If the sequence is correct, the control panel will display the zone selection window.
Select the selected zones (by pressing the zone name) and confirm or select the all button.

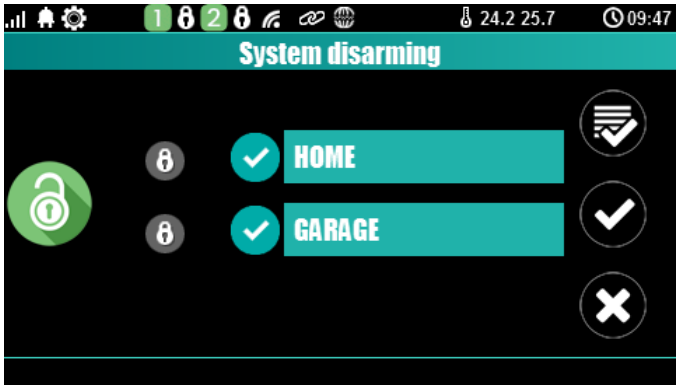
- if the "quick exit" (service) option is activated, the control panel will start the exit delay countdown.

Warnings, depending on the system settings (service):
- if the zones of the control panel are violated, a message will be displayed asking for blocking the zones:
" Block violated inputs? - YES / NO ", if the inputs are blocked from the menu, the following message will appear: "Violated inputs blocked". Zones violated and not blocked will be normally supervised when they return to normal (not affected). If the control panel was in the night-time armed mode, this state will change to stand-by mode (without disarming the night watch).
- if the system is signaled by a failure:
"Malfunction found, arm anyway? -YES/NO".
After confirming the arming, the exit delay countdown begins. Supervision over the detectors will take place after this time has elapsed.If the control panel has the Aero system installed, supervision (status transfer) above these detectors will take place in accordance with the presence control interval, intervals: 30/60 / 90s (service).

Night-time armed mode is a partial arming of zones with the inputs (detectors) assigned to the NIGHT partitions.

Disarming.

To disable the full or night standby mode, press  , then the numeric keypad will be displayed. Enter the code and confirm #. **If the sequence is correct, the control panel will display a zone selection window with their guard status.**
Select partitions (by pressing partition name) and confirm or select the all button.



If the "delayed" input is violated during the armed mode, the numeric keypad will be displayed automatically.

Canceling alarm.

If an alarm occurs in the system, it is signaled in the panel by the red "ALARM" LED, acoustic signaling and the "ALARM" information window. LCD display in the ALARM window shows the sources of alarms with the name of the zone (detector) and date. After confirming "ALARM" window, numeric keyboard will be displayed. Enter the code and confirm #. If the sequence is correct, the control panel will delete the alarm and disarm the partition (if the control panel was in armed mode). **Delete alarm can also delete any notification action; SMS, SMS + VOICE, VOICE (service).**

If the system is configured with alarms from temperature sensors T1-T4 and / or from the analog input AI, they can be presented as alarms in accordance with the entered descriptions (service), eg high temp. boiler CO. Above alarms of temperature or analogue alarms do not generate the alarm status of the intrusion system.

System status preview.

In order to view the current state of zones, press  . Zones are viewed after pressing button  (if the system has EXP-I8, EXP-I8-RN zones modules installed, the Aero system and touch keyboards).

Pressing again  will return to the preview of previous inputs. During the preview, the display will show the graphic status of the zones: status + name of the zone. Status is presented through a colored semaphore, where the color means:

- GREEN: ZONE INTACT
- RED: ZONE VIOLATED
- YELLOW: ZONE SABOTAGE
- MAROON: ZONE BLOCKED
- GREY: ZONE DISABLED

Touch panel will remain in zone preview mode until the function exits via X. The screen saver will also be inactive.
If the **Aero** system is in the system, the following symbol may appear next to the zone status (detector):

low voltage of the battery  , which informs about the need for replacement of the battery in a given device by the service. If other Aero devices are installed in the system and operate under similar broadcasting conditions, they probably also need to be controlled and possibly changed batteries.

Pressing button  enables a preview:

-  synoptic board: if there is an SD card installed in the panel with the file 'plan.bmp' and detectors (service) are arranged, then there is a view of the building plan with the detectors deployed (service).

-  temperature histogram: after pressing the button and if the TSR-1 sensors are installed in the system, the panel switches to the display mode of current measurements from temperature sensors: T1- red, T2 - blue, T3- yellow, T4 - green.
Graph is scaled automatically and refreshed every 1 minute, ie one pixel is one measurement. In addition to the histogram, the function of registering the temperature history on the SD card (service) is available on the display, for each day a file with data in the format rr_mm_dd.txt is created. for further data processing,

-  analog value measured by AI input, 0-10V, unit [mV]. Measurement can be scaled (service) to the actual physical unit, eg voltage = volta [V], relative humidity =% RH, etc. In addition to the presentation of the current value on the display, the function of recording the temperature history on the SD card (service) is available, the measurement is recorded analogically to the temperature (frequency 1 / 60s.).

Event history.

In order to view history of events in the system, press  , then the numeric keypad will be displayed. Enter the code and confirm #. If the sequence is correct, control panel will display the event memory, line syntax with a single event::
RR.MM.DD GG.MM EVENT IN THE SYSTEM.

Navigation in history is done by buttons  **.** Exit from the browse follows the button  .

Editing codes.

To enter the code editing function in the system, press  , then the numeric keypad will be displayed. Enter the code and confirm #. Following functions are available for user with the main code:
- new code (user) + permission setting,
- change of the main code,
- removing codes,

Following functions are available for other users:
- user code change.

System may have a maximum of 32 codes (users): 1 main and 31 users.
Main code has access to all functions, user codes have limited permissions.

Preview of system failures.

In order to view failure in system, indicated by a yellow LED; TROUBLE should be pressed  . "SYSTEM MALFUNCTIONS" will appear on the display.

Settings.

To enter the settings available to the user, press  , then the "user" button. **Enter the main code and confirm #.** The following settings are available:
- set the clock: set the clock and system date,,
- relay time: sets the relay operation time in the panel, monostable mode: min. 1s, bistable mode: 0s
- on / off chime: enables or disables chime signaling from zones in a given touch panel **(chime configuration is not remembered when the touch panel loses power)**,
- SMS reading: allows you to read the last SMS from the inbox (only that SMS is shown and displayed, which does not have an access code and is not a system command, eg information from the GSM network), reading an SMS deletes memory and signaling incoming message,
- LCD brightness: allows user to adjust the brightness of the display in screen saver mode or digital photo frame function (factory settings 30%),
- service access: launch of the function allows access to the service through the service code for system configuration for a period of 8 hours (access via touch panel).

Blocking zones.

To enter the function of blocking zones (detectors), press  ; if a code is required, a numeric keypad will be displayed, enter the code and confirm #. Blocking consists in selecting X at the selected input. Output and confirmation is done via  , exit from blocking without confirmation occurs via  .

Zone blocking is also available during system arming, except that the system will ask you to enter the code before activating blocking.

Outputs controling.

TPR-4 touch panel allows you to control the outputs in several ways:

- controlling the group of outputs - icon: 

- single output control - icons:  ,

In order to enter the control functions of selected outputs (service), one of the symbols shown above should be pressed. If required (service), enter the code and confirm #. Control consists in pressing the field with the description of the given output. Activation of the output (group of outputs) is signaled by a red semaphore next to name of the output. Detailed parameters of the outputs and their names are configured by the installer in the system configuration phase (service). In each touch panel you can configure a different list of outputs, available for control (service). Exit from the control function is carried out by pressing  .

Relay controling.

Controlling the relay output in the touch panel quick control (**eg gates, wickets**) consists in pressing.  . If required (service), enter the code and confirm #. The output activation is signaled by the changed pictogram  .

Parameters of the relay output in a given touch panel are defined by the main user in the menu:  **-> User -> Relay time.**

Relay output can work in MONOSTABLE mode (pressing switches on for a given time) with a minimum activation time of 1s. or BISTABLE (next press changes the status to the opposite) **then operating time should be set to 0s**.

Relay output can also be remotely controlled via SMS commands:

Command (#### = access code, X = touch pad number, address; 1,2,3,4)	**Description**	**Example**
#### ontpX	**SWITCHING** relay output in the **TP1** panel (service)	1212 ontp1
#### offtpX	**TURNING OFF** relay output in **TP1** panel (service)	1212 offtp1

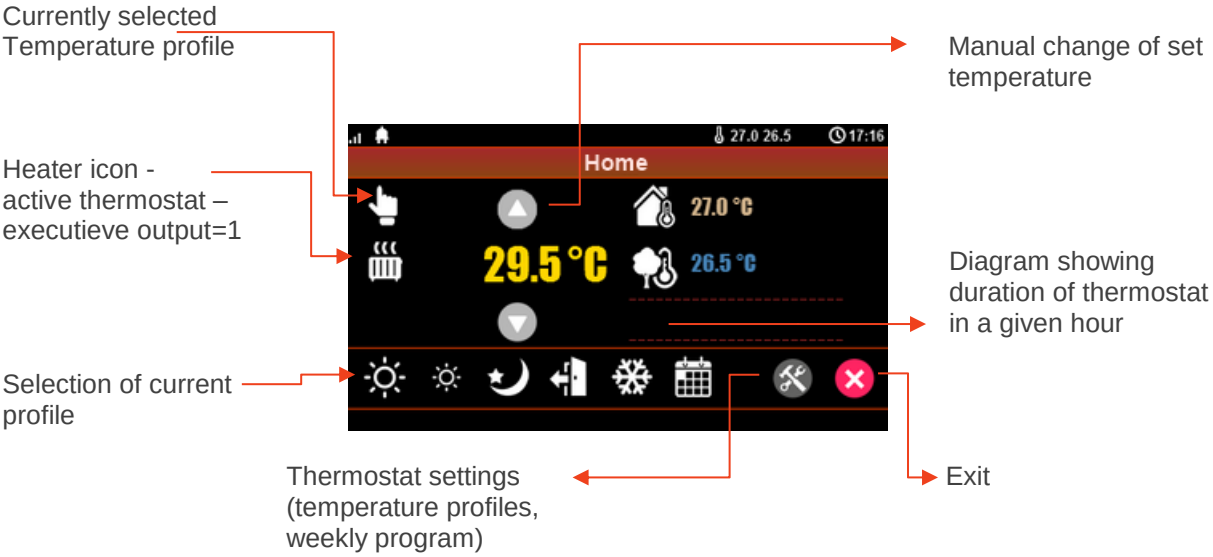
System address for a given touch panel is defined by the installer. When configuring a given output in monostable mode, sending the "offtpX" command shortens the time of this output.

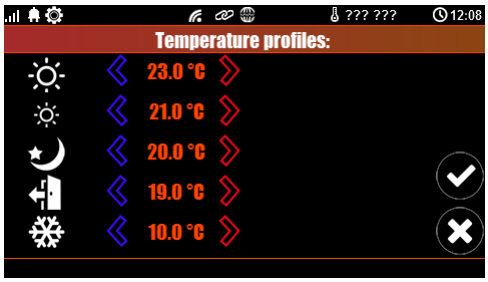
SD, SDHC card.

Touch panel supports microSD and microSDHC cards, the card is required for the function:
- **building plan** (synoptic board), 'plan.bmp' (service),
file location: **SD/plan.bmp**, file type: BMP, size: 320x240px or smaller in proportions, number of colors: 256 (8bit) or 16 mln. (24bit)
- **digital photo frame**, 100 photos maximum, photo display time 10 sec., sequence: file date order (oldest = first)
file location: **SD / pics**,
file type: BMP, size: 320x240px or smaller in proportions, number of colors: 256 (8bit) or 16 mln. (24bit)
file type: JPG, size: 320x240px or smaller in proportions, number of colors: 256 (8bit) or 16 million. (24bit)
- recording temperature history and / or analog value, for each day a data file is created (frequency of recording 1 / 60s.) in the format rr_mm_dd.txt. for further data processing

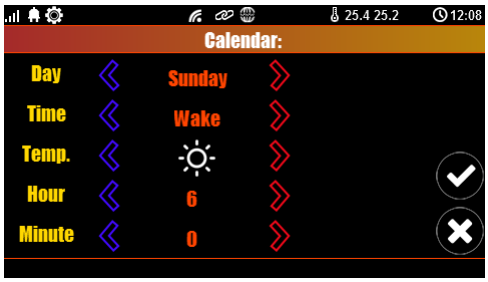
NOTES: Installation of the microSD / microSDHC card - see: TPR-4 installer manual, page no. 10.

Room thermostat.





Temperature profiles



Calendar

Touch panel TK-3W / TK-3B.

Description.

The TK-3x touch keypad is used to control the NeoGSM-IP series alarm control panel.
Due to the limited functions of the 'partition keypad', a dedicated touch panel should be installed in the system.
The keyboards come in two versions:
- TK-3B graphite casing, black keyboard with highlighted characters,
- TK-3W white housing, white keyboard with gray signs and highlighted fields.

Numeric keyboard operations.

View of TK-3B touch keyboard.

Touch keyboard TK-3x.	
Element	Description
0-9, *, # touch keyboard	Numeric, touch (capacitive) keyboard without mechanical contacts, with LED backlight. Dedicated for use with fingers.
	LED Power (green) On (ON) = AC supply present Blinks (1x / 1s) = no AC power (battery operation)
	LED Alarm (red color) On (ON) = alarm in the system (zone) Off (OFF) = no alarm

	LED Vigil (green color) Lit (ON) = armed mode (full or night) Off (OFF) = standby disabled Blinks (1x / 1s) = time to enter or leave
	LED Failure (yellow) On (ON) = system failure Blinks (1x / 1s) = failure reading or programming mode
	LED [Alarm + Failure] Blink simultaneously (1x / 1s) = SERVICE MODE
	LED [Alarm + Failure] Blink simultaneously (1x / 1s) = SERVICE MODE

System operations.

Standard system operation. (factory [CODE] for the NeoGSM-IP system is [5555])	
[CODE][#]	Arming the partition (arming).
	Disarming the partition (disarming) or canceling an alarm i partition.
[*]	Canceling entered digits in case of error or canceling the function.
Acoustic and optical signaling (backlight).	
5x of high tones, 1x backlight	Correct weaponry or disarmament (code adoption).
1x tons long, low 6x backlight + LED [power + alarm + standby + failure]	Wrong code.
5x medium tones	Entry violations during arming (forced arming).
5x modulated modulus low / medium	Tampering or entry failure during arming (forced arming).
2x medium tones 1x backlight + LED [power + alarm + standby + failure]	Violent zones with set control during arming (priority), arming lock.
3x tons high	Automatic cancellation, too long time between characters (inactivity 15s)

Additional functions.

[*] [#] [1] [#] [CODE] [#] [NEW CODE] [#] [NEW CODE] [#]	Change the access code.
[*][#][2][#]	Reading the current failure (last, range 1-99): 'xy' Failure number indication displayed by backlight keyboard digit: 'x' first digit 1s → pause 1s → 'y' second number 1s → pause 3s ... etc. The number of the failure in accordance with the failure code in SMS STAN for a given system). Exit from the failure overview: **[*]** (there is no automatic exit from viewing failures)
[*][#][3][#][ALARM TIME][#]	Changing the signal time of a loud alarm in the TK-3x keypad. The value 1-9999 seconds, 0 s disables the signaling.
[*] [#] [0] [#] [MAIN CODE] [#] [SERVICE CODE] [#]	Entering the service mode. (Service mode only after permission of the main user).
[*][#][0][#]	Exit from the service mode.

Service operations.

System does not require any specific maintenance. During periodic technical inspections, check the condition of the screw joints, clean the PCB with compressed air. System should be periodically tested for proper operation and communication. If the casing or touch panel becomes dirty, clean it with the usual means for LCD computer monitors.

RopamNeo application.

RopamNeo (Google Play / AppStore)

Full manual for the RopamNeo mobile application (Android, iOS), available at:
https://ropam.com.pl/en/towar/706/ropamneo.html

Remote controllers.

NeoGSM-IP system can be operated by means of the TR-4 and Keyfob-Aero radio remote controls manufactured by Ropam Elektronik.

Keyfob Aero.

If the system has an APm-Aero or AP-Aero radio controller installed, remote control of system standby and system functions via two-way radio remote controls is available. In addition, it is possible to set up a help call, so-called PANIC (service).

The buttons A, B, C, D, E can have the following functions:
- no function + relay control,
- on / off full arm + output / output control (service),
- on / off night arm + output / output control (service),
- arming full + control of the output / outputs (service),
- night-time arming + output / output control (service),
- disarming / alarm + output / output control (service),
- loud panic + output / output control (service),
- system status check + output / output control (service),

It is possible to configure (service) confirmation of acoustic arming at a given control panel output, then the siren, LED diode will signal:
- arming with 1 signal (1x 0.5s.),
- disarming two signals (2x 0.5s.),
- arming with violated zones (detectors) 5 signals (5x 0.5s.),
- arming system sabotage (detectors) of 10 signals (10x 0.5s.),
- Information on remote arming can be sent via SMS to selected telephone numbers.

Clearing the alarm can also delete any notification action; SMS, SMS + VOICE, VOICE (service).

TR-4H.

Remote controllers.

If a system power supply with an RF-4 radio controller is installed in the system, remote control of system standby via radio remote controls is available. In addition, it is possible to set up a help call, so-called PANIC.

Buttons A, B, C, D can have the following functions:
- no function + relay control,
- on / off full arm + output control,
- on / off night arm + output control,
- arming full + control of the output,
- night-time arming + output control,
- disarming / alarm + output control,
- loud panic + output control,

It is possible to configure (service) confirmation of acoustic arming at a given control panel output, then the siren, LED diode will signal:
- arming with 1 signal (1x 0.5s.),
- disarming two signals (2x 0.5s.),
- arming with violated zones (detectors) 5 signals (5x 0.5s.),
- arming system sabotage (detectors) of 10 signals (10x 0.5s.),
- Information about remote arming can be sent via SMS to selected telephone numbers.

Clearing the alarm can also delete any notification action; SMS, SMS + VOICE, VOICE (service).

SMS control.

System supports SMSs: **GSM or UNICODE alphabet** other formats are not supported!
The installer (service) can block the remote control and the control panel will respond with the following message when attempting to control the SMS: "**SMS control not possible, check settings!**".

SMS control: system arming.

Control of armed mode by SMS consists in sending an SMS about the form, access to functions and zones, determining the authorization of the given code.

Command	Description	Example	Response
#### **arm** #### **arm 1,2,3,4**	**Arming system (supervision)** (full or indicated zones)	5555 arm 5555 arm 1,2	Armed system. Arming error, check the code permission to zones.
#### **arm night** #### **arm night 1,2,3,4**	**Arming (supervision) night** system (all or selected zones)	5555 arm night 5555 arm night 1,2	Armed night. Arming error, check the code permission to zones.
#### **disarm**	**Disarming system (supervision)** (full or night, all or selected zones)	5555 disarm 5555 disarm 1,2,	System disarmed. Disarming error, check partitions acess code.

Armed mode control via SMSs is interpreted by the system in the same way as control from the touch panel

SMS control: blocking zones.

It is possible to remotely block or unblock any device inputs by sending an SMS command in the form:

Command	Description	Example	Response
#### **lock I1,...I48**	Function blocks selected zones in the system.	5555 lock 1, 3 (input I1 and I3 will be blocked)	Zones locked
#### **unblock**	Unlocks all blocked inputs	5555 unlock (all inputs will be unlocked).	Zones unlocked

Blocking via SMS is interpreted by the system in the same way as blocking from the touch panel.

SMS control: outputs.

Controlling the outputs via SMS consists in sending an SMS with a specific content, the control command may require an access code or not (service). The flexible software of the module allows that: **content of SMSs controlling the outputs can have any content, eg pump on, pump off**. Exact parameters of the outputs and their intended use are determined by the installer.
Control syntax using factory control commands is shown below:

Command	Description	Example	Response
#### **onx**	Output x is **switched on**, where x is the output number	5555 onlight	**Output switched on (x) 'SMS On content' where:** x = the number of the output in the system, 'SMS content on / Off' = SMS content set to control the given output
#### **offx**	Output x is **switched off** where x is the output number	5555 offlight	**Output switched off (x) 'SMS Off content' where:** x = the number of the output in the system, 'SMS content on / Off' = SMS content set to control the given output

If touch panels are installed in the system, relay output can also be remotely controlled via SMS commands:

Command	Description	Example
#### **ontpX**	**Switching on** the relay output on the **TP** panel, where X = panel number (address, service)	5555 ontp1
#### **offtpX**	**Switching off** the relay output in the **TP** panel, where X = panel number (address, service)	5555 offtp1

Switching off relay output in the TP panel, where X = panel number (address, service)

Command (#### = access code)	Description	Example
#### **onrx**	**Switching on x,** where x (1,2,3,4) is the RF-4 relay / output number	1212 onr1
#### **offrx**	**Switching off x,** where x (1,2,3,4) is the number of the RF-4 relay / output	1212 offr1

Control of the video intercom.

If the system is integrated with the video intercom system (VAR-1 integration element), then an SMS command to open the rafter (gate / wicket) is available.

Command	Description	Example
#### **doorlock**	Turning on the system of the doorbell transceiver in Kenwei doorphone (gate / gate opening)	**5555** doorlock

ThermostatGSM: monitoring and changing temperature thresholds.

If temperature sensor (i) is installed in the system and SMS notification is configured, VOICE when the alarm thresholds L / H are exceeded, it is possible to disable notifications via the SMS command

Command	Description	Example	Response
#### **tempmonit x**	Remote on / off SMS / VOICE notification function when the L / H temperature thresholds T1, T2 are exceeded. X = 1 function included x = 0 function disabled #### - current access code	1111 tempmonit 0	Temperature monitoring ON Temperature monitoring FF

The notification is active at the factory (TEMPMONIT 1). Turning off the SMS / VOICE notification does not affect the functions of the thermostat (controlling the outputs via temperature parameters) and does not block the presentation of the current temperature in the SMS STATUS.

If the temperature sensor (s) is installed in the system, it is possible to remotely change the temperature thresholds TEMP1, TEMP2 via SMS.

Command	Description	Example	Response
#### **tempa x yy**	**Remote change of threshold A** (default Hi) for a given thermostat, X = number of thermostat, temperature sensor. yy = set temperature in [° C] from the range of values -55 ÷ 125	5555 tempa 1 55	Configuration changed
#### **tempb x yy**	**Remote change of threshold B** (default Lo) for a given thermostat, X = number of thermostat, temperature sensor yy = set temperature in [° C] from the range of values -55 ÷ 125,	5555 tempb 1 -5	Configuration changed

AI input: change of voltage thresholds.

If an analog input is used in the system, it is possible to remotely change the L and H temperature thresholds via SMS.

Command	Description	Example	Comments
#### **aia zzzz**	Remote change of threshold a for AI input,	1111 aia 9999	Configuration changed

Command	Description	Example	Comments
	zzzz = set physical value from the range of values		
#### **aib zzzz**	Remote change of threshold b for AI input, zzzz = set physical value from the range of values	1111 aib 8888	

Control of the Aero wireless system.

If the system uses the Aero wireless system, then the user has the option of switching on the motion detector test (operation test = starting the LED diode).
In order to save energy in the detectors, WalkTest works for 30 min. since launch, the WalkOff command allows you to disable after testing within 30 minutes.
Transmission of command will take place in accordance with the interval of detector presence monitoring, intervals: 30/60 / 90s (service).
WalkTest control consists in sending SMS commands to the system:

Command	Description	Example	Comments
#### **walkOn**	Remote activation of operation test (LED) in the detectors.	5555 walkon	where: #### = access code, the test works for 30 min.
#### **walkOff**	Remote disable of operation test (LED) in the detectors.	5555 walkoff	

System status.

Transmission test

Functions starts and configures installer. Test can be performed at a fixed time, at a specific time interval or controlled by Timer 1. Available transmission test options
- SMS (eg GSM OK module),
- CLIP (the so-called bell),
- SMS STAN (system status in an SMS message max. 16 characters),
- E-Mail STATUS (an e-mail sent via a configured SMTP account, e-mail can all possible information from the system).

The system status can contain (display parameters are configured in control panel):
- system time (STATE state timestamp),
- partition status,
- GSM network status, coverage,
- system version,
- power supply status and DC power supply voltage,
- temperature value from sensors,

- analog AI input value after scaling,
- failures in the system,
- zones status,
- outputs status.

In addition, at any time, the user can "**ask**" about:
- system status (SMS STATUS),
- e-mail with the system status and photos from IP cameras (activation of the output eg by SMS or CLIP sends an e-mail with the necessary data) (service)

System status: SMS STATUS.

Checking the status of the module. consists in sending an SMS command in the form:

Command	Example
#### status	15/02/20 15:00 Zones:00000000000000000000000000000000 Outputs:00000000000000000000000000000000 AI 250mV sv:1.0 GSM:3,24dbm Uz:13.7V Temperature Sensor 1:22.5 Sensor 2:18,5 Sensor 3:35,5 Sensor 4:25.5 Partition 1:armed Partition 2:disarmed Partition 3:alarm Partition 4:tamper FGR-4: CH1 CH2 CH3 CH4 S

Text SMS STATUS	Description
Wejścia (I): I1 ... I40	*0 - zone intact* *1 - zone violated (active sensor)* *X - zone disabled (service)* *! - zone tamper* *B - zone / time block or after 3 alarms* *b - blocking of entry by the user* *A - alarm memory and input violated* *a - alarm memory and input intact* *F - failure / screening of sensor (service)* *? - no connection to Aero wireless device* *W - zone violated (active sensor) + weak battery of Aero wireless device* *w - input intact + weak battery of Aero wireless device* (visibility of individual inputs is configured by the installer)
Wyjścia (O): O1 ...O8	output status, 0 = output inactive, 1 = active output (logic state) (the visibility of individual outputs is configured by the installer)

Text SMS STATUS	Description
AI: xx	instantaneous value of analog input expressed in [mV] or scaled to the physical value (the visibility of the input and its scaling is configured by the installer)
sv x.x	version of control panel firmware (firmware)
GSM: P, xx dBm	GSM network status status (2G) P: 1-5 ('dashes'), value in dBm
Uz: xx.x V	value of DC power supply voltage in the unit [V]
Awaria: xx	status of failure, the failure code is synonymous with the number of blinks in the FAIL diode series on the control panel: 01 - poor network level, below 2 "lines" (RSSI <15) 02 - modem not logged in to the GSM network 03 - unsuccessful sending of SMSes in the series 04 - no connection to the GPRS monitoring station (ARC) 05 - no GPRS 06 - no communication with the GSM modem 07 - PIN code error (PUK lock) 08 - SIM error, no SIM 09 - required PIN card not logged in 10 - GSM jamming (jamming) 11 - no AC 12 - overload / short circuit of O1 output 13 - overload / short circuit output O2 14 - no-load output O1 15 - no-load output O2 16 - AUX overload / short circuit 17 - overload / short circuit of output + KB 18 - low DC power supply voltage (<11V) 19 - failure / lack of battery (<11V) 20 - EEPROM memory error 21 - overload / short circuit of the + VT output 22 - modem power failure 23 - FLASH memory error (serial) 24 - RTC clock chip error 25 - failure of motherboard inputs 26 - internal error of the MCU microcontroller 27 - blocking of SMS / CALL / E-MAIL, exceeding 24h counter 28 - loss of connection with the IQPLC device (in the SMS STATUS, only the trouble codes are shown. all failures are signaled in the panels)
Temperature Sensor 1 ... Sensor 4	instantaneous temperature value from temperature sensors in the unit [° C], (the visibility of individual sensors and their names is configured by the installer)
Partition 1 ... Partition 4	state of zones in the system (visibility of zones and their names is configured by the installer)

Warning:
- SMS STAN contains a maximum of 160 characters, it is necessary to configure displaying the required parameters as needed.
- STATUS e-mail can contain all system parameters.

System status: Zones status SMS.

Remote check of module input status. consists in sending an SMS command in the form:

Command (#### = access code)	Description	Example
#### **zones**	Command returns the state of inputs with its name in the system and state. Range of inputs is identical to SMS STATUS. 0 - entry intact 1 - zone violated (active detector) X - zone disabled (service) ! - zone sabotage B - zone / time block or after 3 alarms b - blocking zone by user A - alarm memory and zone violated a - alarm memory and zone intact F - failure / screening of the detector (service) ? - no connection to the Aero wireless device W - zone violated (active detector) + weak battery of Aero wireless device w - input intact + weak battery of the Aero wireless device (the visibility of individual inputs is configured by the installer)	1 zone 1 0 2 zone 2 1 3 zone 3 ! 4 zone 4 b 5 zone 5 b 6 zone 6 a 7 zone 7 0 8 zone 8 x

USSD codes; top-up prepaid account.

It is possible to remotely recharge the SIM account of the PREPAID card (with the scratch code). This requires sending an SMS command in form:

Command	Description	Example
#### **charge xxxx** #### **ussd xxxx**	Reply: "SMS from the network" for a correctly executed command or "Problem sending USSD code" for error, delivering messages to the network.	5555 charge *109*2894587902389 2#

where xxxx = command to top up a given operator using a 14-character code from "scratchcard" (zzzzzzzzzzzzzz = scratchcard):
- Heyah: *109*zzzzzzzzzzzzzz#
- Tak-Tak: *111*zzzzzzzzzzzzzz#
- Plus GSM: *123*zzzzzzzzzzzzzz#
- Orange: *125*zzzzzzzzzzzzzz#
- Play: *100*zzzzzzzzzzzzzz#

USSD check codes for prepaid account status.

Control panel supports and transmits USSD codes. With the help of USSD codes, you can manage and control your subscription or prepaid account.
The basic function that can be implemented using the USSD codes is to check the prepaid card account.

Command	Description	Example
#### **ussd 'operator code'**	Reply: "SMS from network" for a correctly executed command or "Problem sending USSD code" for error, delivering messages to the network.	5555 ussd *124*#

USSD codes to control account balance for selected operators:
- Orange: *124*#
- Plus GSM: *100#
- T-mobile: *101#
- Play: *101#
- Heyah: *108#
- njumobile: *127*1#
- Lycamobile:*131#

A full list of USSD codes is available at a given GSM operator and allows you to manage services and promotions in a given tariff.

Remote configuration of selected functions: SMS.

Access to the remote control can be blocked in the control panel settings (service), the selected commands are available only for the main code in the system or the service code.

Parameter	Description	Example	Response
#### **code zzzz**	Change of the SMS access code zzzz = new access code	5555 code 0987	Configuration changed
#### **time rr, mm, dd, gg, mm**	Setting or changing the date and time (yy, mm, dd, hh, mm = year, month, day, hour, minute)	5555 time 02, 01, 01, 12, 05	Time set 15/02/20 15:00
#### **restart**	Control panel restart	5555 restart	
#### **downloading x**	Remote activation / deactivation of the modem connection function X = 1 function included x = 0 function disabled	5555 downloading 1	Configuration changed

Parameter	Description	Example	Response
##### **replysms x**	Remote activation / deactivation of the confirmation return function for SMS commands X = 1 function included x = 0 function disabled	5555 replysms 1	Configuration changed
##### **echo x**	Remote on / off the function of sending unrecognized SMSes from the ECHO network, e.g. passwords to the www account, information from the network X = 1 function included x = 0 function disabled	5555 echo 1	Configuration changed

Other sms commands.

Command	Description	Example	Comments
#### **resettest**	Resetting the test clock transmission and deletion SMS counters, crashes.	5555 resettest	
#### **telx nnnn**	Change or enter a new phone number (nnnn = phone number)	5555 tel1 +48555666777	#### = access code nnnn = telephone number in international format
#### **addtel nnnn**	Adds to the first free number. After correct implementation the module sends an SMS "Added number", in another the case of "Error, no number added! "	5555 addtel +48 555666888	#### = access code nnnn = telephone number in international format
#### **deltel nnnn**	Removes the indicated number from the memory. After the correct execution, the module sends back SMS "Number deleted", otherwise "Error, no number removed"	1111 deltel +485556668 88	#### = access code nnnn = telephone number in international format

Command	Description	Example	Comments
#### **centrum nnnn**	Change or enter new center number SMSs (nnnn = number center)	1234 CENTRUM +48100200300	#### = access codennnn = center numberSMS in international format
#### **lockbin I1i2i3i4i5i6i7i8i9i10i11 I12...i32**	The locking mask enters the module in time disarming or resetting the module. If item I1 ... I20 = 1, the module will block zone If position I1 ... I20 = 0, the module skips at blocking the zone data (it will not change it function).	1111 lockbin 100000000001 (input I1 and I12 will be blocked)	zone I1 and I12 will be blocked
#### **wifi**	returns Wifi network status: IP, SSID, WPA2, RSSI, mode, internet IP - assigned IP address, SSID: name of the Wifi network WPA2 - Wifi network password mode: set operating mode: client (0), accespoint (1), off (3) internet: yes / no		
#### **restartwifi**	Restarts Wifi module.		Use in the case of a long non-response of the wifi module.
#### **lanstat**	Returns device communication statistics on RopamNet bus.		
#### **huma**	Change of humidity thresholds: xxxx huma x val - where x sensor number 1.2 val- humidity value 0-100%: xxxx huma x val - where x sensor number 1.2 val- humidity value 0-100%	Example: 5555 huma 1 80	

SMS control.

Command	Description	Example	Comments
#### **humb**	Change of humidity thresholds: xxxx humb x val - where x sensor number 1.2 val- humidity value 0-100%	Example: 5555 humb 1 80	
#### **connect**	Trigger service connection.		
#### **history**	Last 7 events from control panel memory.		Control panel sends last 7 events from control panel
#### **heating xx**	Setting the room thermostat temperature	#### heating 22 Where 22 is the temperature sent to the central office.	xx - value of the set temperature.
#### **netstat**	Status of RopamNet bus		
#### **wrltemp**	Information about wireless sensors (AERO)		

DTMF control.

Controlling via DTMF consists in sending DTMF characters during a voice call to the system. Połączenie głosowe VOICE może być przychodzące od systemu (np. alarm) lub poprzez wdzwonienie się z upoważnionego numeru do systemu (serwis).

A single DTMF code (pressing the sign) should last for a minimum of 0.5s.
Voice synthesizer VSR-2 is required for voice confirmation of performed controls.

DTMF control: arming.

Control of armed mode through DTMF consists in connecting to the system by voice and during connection, selecting the appropriate sequence of digits and confirming [#] (service). **Voice synthesizer VSR-2 is required for voice confirmation of performed controls.**

Command	Description	Example	Comments
zzzz #1	**Arming (supervision) of system** of everyone to whom the code has permission.	5555 #1	Access code zzzz = user's access code or master If VSR-2 is installed, a voice message will be played: "Armed" or "Disarmed". in case of error message: "error"

DTMF control: outputs.

Controlling the outputs via DTMF consists in connecting to the system with the voice (service) and during the connection selecting the appropriate sequence of digits and confirming [*] (service). **Voice synthesizer VSR-2 is required for voice confirmation of performed controls.**

Command	Description	Example	Comments
zzzz*	**Switch on** Ox output, where zzzz DTMFOn code for the given output	2221*	It is not recommended to use a single digit, do not use #. If VSR-2 is installed, a voice message will be played: "Output is attached" or "Output is turned off". in case of error: message: "error"

DTMF control: end of queue for VOICE.

End of ringing queue via DTMF consists in selecting [#] on the keypad during a voice call (service).
If you use the function, set the appropriate order of numbers to VOICE notifications according to the priority for this type of notification.

Command	Description	Example	Comments
#	End voice notification for subsequent numbers in this queue.	#	This is a system option and requires inclusion in the system configuration.

DTMF control: door intercom bolt.

If the system has a VAR-1 gateway for integration with a video intercom, it is possible to control the system output to open the gate or the door (service).
The control consists in entering the 'DTMF code of the opening door' during the call with the video door station and confirmation [*] (service). **Voice synthesizer VSR-2 is required for voice confirmation of performed controls.**

Command	Description	Example	Comments
rrrr*	SWITCHING on output latch to open the video door phone.	1234*	Code: yyyy = opening bolt DTMF code (service) It is not recommended to use a single digit, do not use #.

Version history.

NeoGSM-IP	Data	Opis
1.0	2018-04-01	

Information.

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