IPCOM CLOUD

IPCOMMUNICATOR

INSTALLER AND USER'S GUIDE

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INTRODUCTION

The IPCOM communicator is perfect solution for monitoring transmission where wired Internet is available. By means of the device **immediate alarm transmission** is guaranteed **without any additional operation cost**. According to device type the IPCOM can be connected to the serial port / telephone line connector of the alarm control panel, it provides **reliable** transmission to monitoring station.

To use the highest range of provided functions **please read** carefully the *Installer Manual*.

For the confident programming and secure usage please keep all warnings in *Installer Manual*, with highly focusing to security directions.

IPCOM LED SIGNALS

LED1: In case of proper power supply, the LED-1 lights continuously.

Flashes	Meaning
Continuous light	Power Supply OK
Quick blinking	Power Supply problem

LED2: Provides general fault signal

Flashes	Meaning
No light	Everything is OK.
Bliking	Reporting failed to monitorosing station trough all possible reporting channels

Note: Quick alternate blinking of LED 1 and LED 2 means no transmission channel is programmed.

LED3: indicating the state of the telephone line.

Flashes	Meaning
No light	Everything is OK, telephone line changing rely is in normal status
Blinking	Everything is OK, telephone line changing rely is in active status

LED4: indicating the state of the Ethernet connection

| Flashes	Meaning
Continuous light	Ethernet connection is OK.
No light	There is no LAN cable connected to communicatior
Blinking	There is communication problem to monitoring station trough Ethernet channel

SYSTEM STRUCTURE

IPCOM communicator receives the Contact ID signals from the PSTN line / serial port of the alarm control panel, or the contacts on its own inputs. These signals are transmitted to the monitoring station through Ethernet network.
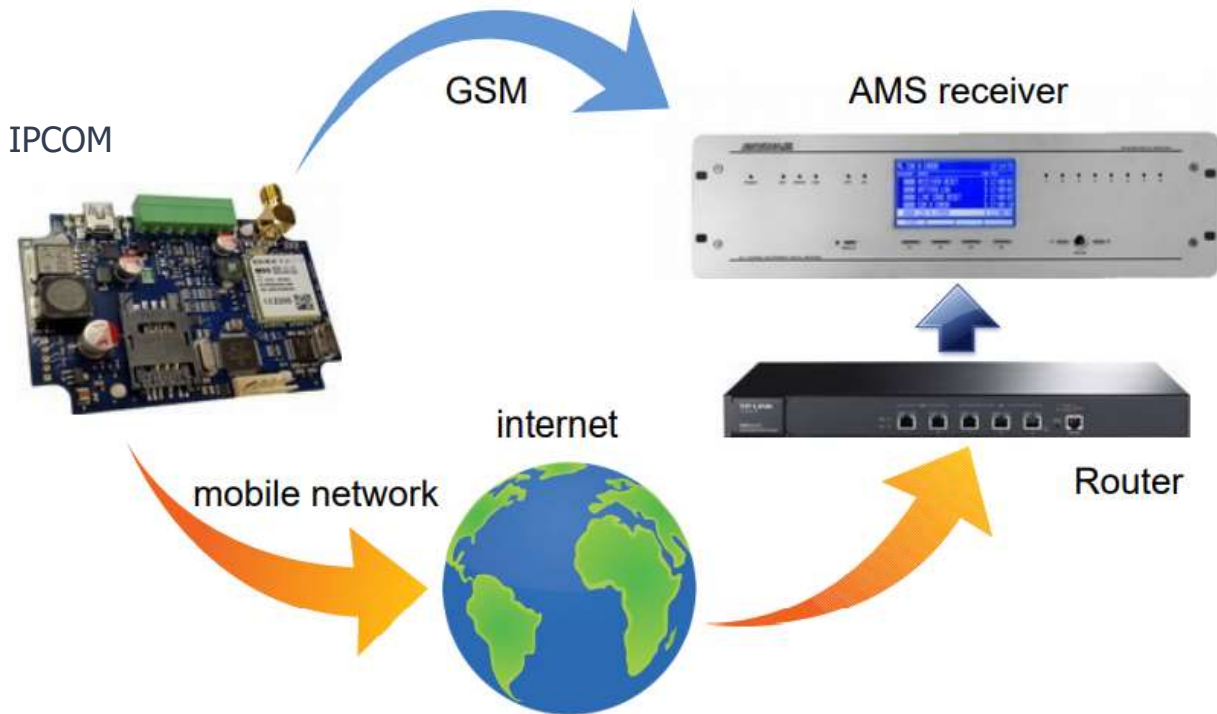
Note: Basic Ethernet network knowledge is always necessary to install IPCOM module

OVERVIEW
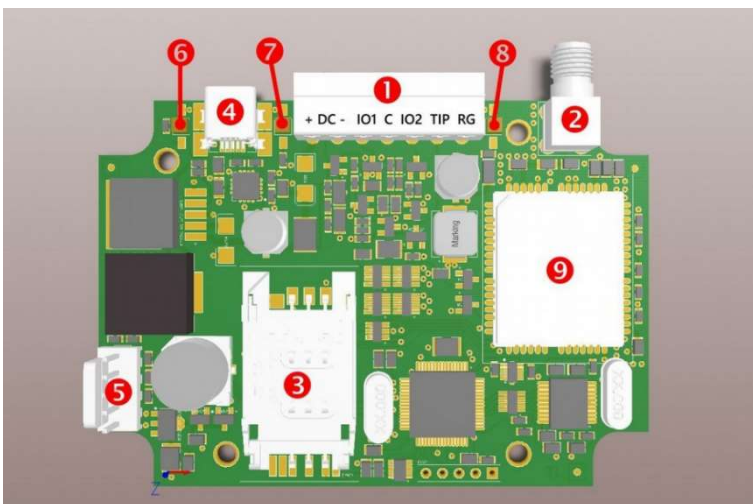
1. Terminal block for connections
2. Antenna socket (SMA)
3. SIM card holder
4. USB connector for programming and debugging
5. Serial connector, for IO-84 connection and programming
6. Trouble LED (LED-2)
7. Power/Signal LED (LED-1)
8. GPRS Comm LED (LED-3) GPRS modem

GENERAL RECOMMENDATIONS

Note: In case of communication trouble the IPCOM module switches the alarm control panel connector to external telephone line connector. So with appropriate settings (dialing the phone number of central monitoring station) the alarm control panel will be able to call directly the monitoring station through external telephone line.

Note: If you want to to use 16 inputs (instead of 8 inputs), the second IPCOM-IO8 panel should be connected the way above, with placed MODE jumper on that.

Note: **+12 Vdc power supply should be connected to each module separately**. The connection of the devices should be made only with 3 wires cable provided in device package (RX, TX, GND).

SYSTEM PROGRAMMING WITH PC SOFTWARE

IPCOM module programming is allowed through serial port by default, but after the appropriate IP settings it can be also configured through Ethernet network. Please use *Terminal* software for programming. The programming steps are the following:

IMPORTANT: In case of old hardware version of IPCOM (without external telephone line connector) always disconnect +12 V power supply of module before serial programming !!! Simultaneous usage of +12 V and USB power supply may damage the programming PC and module.

1. By means of VUP cable and mini USB cable, connect the IPCOM module to the programming PC (for serial programming).
2. Please start *Terminal* software.
3. Choose the ET (settings) file for programming:
- IP_COMM.ET – IPCOMM module programming
4. In Communication / Port Settings menu set the communication port / IP address for programming (default password for IP programming: 1234).
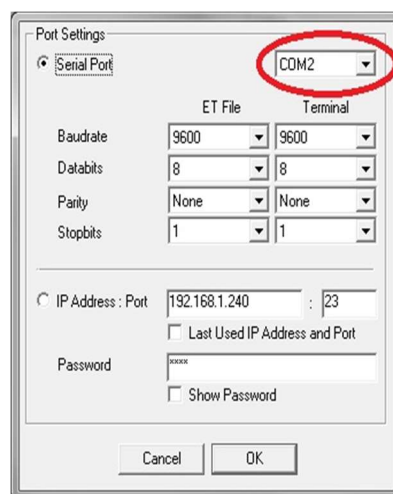
5. By clicking to *Communication | Read Data* menu you can read settings from device.
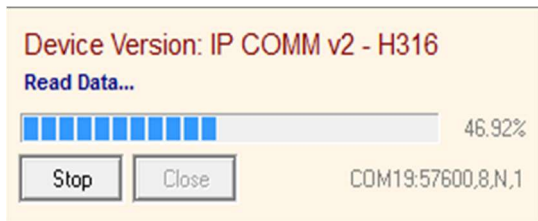
The highlighted firmware version means the following (hexadecimal format):

H – 17 (2017)

3 – 10(October)

02 – 2 (Second day)

6. Please execute the required settings in *Terminal* software.

Note: The software functions are shown in *Terminal* help menu.

7. Click to *Communication | Write Data* menu to send the modified settings to device.

Note: During data reading (and sending) IPCOM firmware version can be checked.

TROUBLESHOOTING

TROUBLE: Any abnormal operation in functions during the usage of the device.

SOLUTION: Firmware upgrade with the newest firmware file usually solve these kind of problems (see *Firmware update* part in manual).

TROUBLE: There is no connection between programming PC and IPCOM module (during serial programming).

SOLUTION: Check the cable plugging in PC side. In programming PC *Control Panel | Hardware | Device Manager* application you can check which COM port appears / disappears in device list during plug / unplug programming cable (with connected IPCOMM). Please check whether COM port setting is correct in programming software.

TROUBLE: IPCOM settings seem fine, but communication is not received in CMS.

SOLUTION: Connect a laptop in place of IPCOM Ethernet cable, and set the same network settings as IPCOM has. Then start ipt.exe program to check is it possible to connect to monitoring receiver from the installation place with the given settings. If there is no contact check the programmed network settings, and the local network parameters (rooter, server, switch, etc).

TROUBLE: No communication is received from alarm control panel to IPCOM.

SOLUTION: Check, that the alarm control panel is set to DTMF (Tone) dial mode, communication should be enabled, there should be added phone number a client account, additionally Contact ID (Full) format should be selected.

TROUBLE: Alarm control panel detects telephone line error, communication problems.

SOLUTION: In some control panels (in control panel settings) there might be required to disable 'telephone line monitoring' and 'wait for dial tone' options. Additionally in some cases 'force dial' option should be enabled in alarm control panel.

It may help if you connect 1K resistor parallel to control panel TIP / RING connector.

There might be the following error messages generated in IPCOM communicator:

1354 012 99 = LAN cable is unplugged.

1354 999 99 = Communication problem between alarm control panel and IPCOMM.

1354 001 99 = Communication problem on Ethernet #1 channel.

1354 002 99 = Communication problem on Ethernet #2 channel.

1354 000 99 = Communication problem on all channels in 1-2-3-4-5-6 mode.

1354 100 99 = Communication problem on Ethernet #1 channel in 1-3-5; 2-4-6 mode.

1354 200 99 = Communication problem on Ethernet #2 channel in 1-3-5; 2-4-6 mode.

MONITORING RECEIVER TRANSMISSION TEST

Testing is useful to test data sending from an external installation place. The testing software in the given local network (where the IPCOM will be connected) can help a lot to check monitoring transmission and find the reason of possible problems. For test please use ipt.exe software in the following way:

1. Enter the *IP address* or *Domain name* of the monitoring station.
2. Set the ports for communication with monitoring station (*Receive Port* = Monitoring transmission port; *Shell (Telnet) Port* = Remote programming port; *Web Server Port* = Event list access through web browser port).
3. After click to Test button it can be seen that test is successful (PASS) or not (FAIL).
4. If you want you can change the program settings in *Options* part:

- *Enable TCP Test Report* = TCP connection test with test message;

- *Enable UDP Test Report* = UDP connection with test message;

- *Invisible TCP/UDP Test* = Test message can't be seen on receiver;

- *Enable AES Crypted Test Report / AES Key* = Test of AES encryption function.
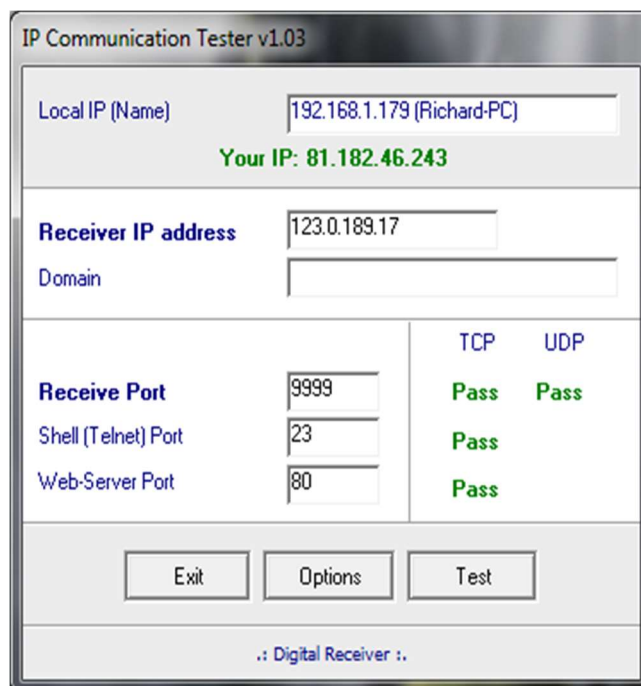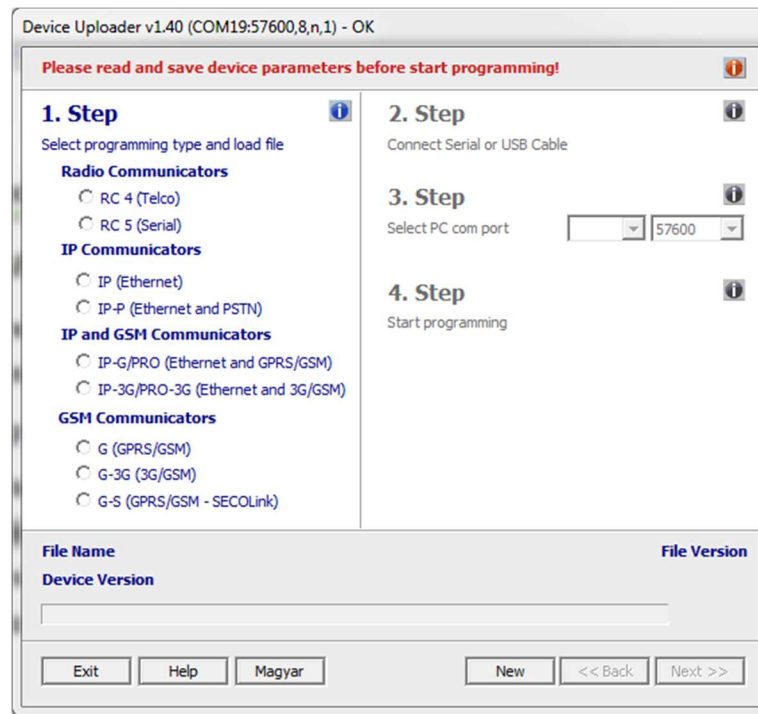
FIRMWARE UPGRADE

It is recommended to upgrade regularly device firmware to use new functions and eliminate possible bugs.

Firmware upgrade can be done by the following steps:

1. Get the latest firmware files from your distributor (IPCOMm.bot).
2. Save settings from the IPCOM with *Terminal* software (please check *3. System programming with PC software* chapter).
3. Start *Device Uploader* program for firmware upgrade.

4. Choose item (IP) for upgrade (1. STEP), then NEXT.

5. Choose the proper firmware file for upgrade (2. STEP), then NEXT.

6. Choose the COM port where IPCOM is connected (3. STEP), then NEXT.

7. Upgrade process can be started with *START* button.

8. Do not forget to send back the saved IPCOM settings at the end of the upgrade (please check *3. System programming with PC software* chapter).

9. To use new functions it might be required to get the latest *Terminal* software with the newest ET (setup) files – please download and use newest version.

CONTACT TRANSMISSION THROUGH IP NETWORK

By means of two IPCOM units there is a possibility to transmit contacts through IP network. The inputs of one of the IPCOM units (transmitter) is exactly followed by the outputs of the other IPCOM unit (receiver). The following settings should be configured additionally to general network parameters.

On transmitter side:

Note: In *Receiver IP Address* field there is the IP address of controlled IPCOM unit.

Note: With modification of *Input 1 / 2 – Loop Type* parameter (NO / NC) you can configure the output activation status of the other IPCOM unit (receiver).

Note: When you open IP_COMM.ET file, you can select *Remote Control* option to set these parameters automatically.

On receiver side:

Note: 6200 port (output control is made through this port) should be allowed for for Port Forwarding in router settings.

Input 1 of IPCOM on transmitter side controls the *Output 1* of IPCOM on receiver side, *Input 2* of IPCOM on transmitter side controls the *Output 2* of other IPCOM.

Note: It is not recommended to use reporting option in IPCOM units which are used for contact transmission, because in this case reporting might be very slow.

PROGRAMING

AES Encryption

We can use 128 bit AES encryption for the message sending, which ensures higher security level.

Global AES Key for Encryption	Enable
Global AES Key (Text)	
Global AES Key (Hex)	000000000000000000000...

Email report

The module is capable to send messages via email about input changes, messages from the alarm panel to one particular email adress. Beside of giving our email adress, we have to determine an account code,which will be attached in the email report. Also an email subject is required to set.The email contains information regarding the event includes the event code (603), (060), and the zone number (001) in case of alarm. To send emails subscription is required at an email server provider.

Ch 7 - E-mail

E-mail	example@gmail.com
Account Code	8888
GPRS E-mail	Enable
E-mail Subject	Status Report

Event filter

The module has the pos sibility to set an event filter. In this way only those events will be sent which are enabled here.

Event Filter (Ch5 - Ch8)	
Alarm (CID 100)	Send events
Supervisory (CID 200)	Send events
Trouble (CID 300)	Send events
Open/Close (CID 400)	Send events
Bypass (CID 500)	Send events
Test (CID 600)	Send events

Input settings

The IPCOM-4G has two I/O ports. In case we use it as an input, we can give the type of the input (NO/NC), the event code, and the restore code. Moreover, the input sensitivity can be modifyied between 10ms and 2550 ms. What is more, it allows us to link a zone number to the input along with changing the maximum number of event repeating.

I/O 1 Parameters (onboard)	
I/O 1 Operation Mode	Input
Input 1 - Loop Type	NC
Input 1 - Event Code	1130
Input 1 - Restore Code (Optional)	
Input 1 - Restoral	Enable
Input 1 - Sensitivity	500 ms
Zone No.	0
Max. Event Repeat / Hour (0 - Disable)	0

Output settings

The module is equipped with an open-collector output, therefore, the output switch to the ground In case of control. The outputs can be managed by call or SMS. In addition, automatic output controlis possible as well includes power fail, channel fault, low signal level, general fault or sufficient power Level. By default the type of the output is normally close. Also it is not changeable. The outputs are working in monostable mode, which control time can be from 1 secundum to 65535 ousecundum.

I/O 1 Parameters (onboard)	
I/O 1 Operation Mode	Output
Output 1 - Operation	Gate control (phone call)
Output 1 - Time	0 sec

Control phone numbers

The outputs can be controlled from 8 phone numbers with caller identification. The outputs can be controller only with caller identification.

Remote Phones	
Phone No. #1	36201234567
Phone No. #2	36301111112
Phone No. #3	
Phone No. #4	
Phone No. #5	
Phone No. #6	
Phone No. #7	
Phone No. #8	

Individual zone names

In the Zone Names menu, we can name the zones individually. Hence, we can get SMS or Email notifications from the module with the unique zone names.

Zone Names	
General zone name	ROOM
General user name	
Zone #1	ROOM1
Zone #2	ROOM2
Zone #3	ROOM3
Zone #4	ROOM4

Connecting the module to the alarm panel

In the *Telco special parameters* we can set the details of the communication between the module and the alarm panel. We must set a number that the alarm center will dial. Recommended number: 99999999.

The IPCOM-G communicators are connected in most cases to the telco interface (TIP and RING terminals) of the security control panel. When connected to the telco interface of a security control panel, the following might be considered:

Telco Special Parameters	
Communicator Phone Number	99999999
Receive All Calls	Enable
Dial Tone	Enable
Dial Timeout	500 ms
Time Between Handshakes	3 sec
Alarm Control Panel Trials	3
Handshake Method	Fix
1400 Hz Freq. Value	0
2300 Hz Freq. Value	0
Handshake Length	1000 ms
Dual Handshake Length	100 ms
Billing Delay	1 sec
DTMF Timeout	200 ms

IPCOM module registration of the website

(Please check your IPCOM devices Firmware. Cloud connection required LC15 or latest Firmware.)

1. Go to www.ascloudmanager.com website and create an account
2. Enter your email address and password then your name
3. Country settings (for setting module parameters)
4. Select your native language
5. Set the website language
6. Enter Title (Installer / End User / Monitoring Station)
7. Click the 'I'm not a robot' box and click '**Register**'
8. After entering the website, click on the "**Tools**" menu and add our IPCOM module to your account with the "**Add registered device to user**" button
9. Enter the name of the installation site for easier identification
10. If you already have more than one device, you can assign your new device to "**Installation Locations**"
11. In the line "**MAC / IMEI address of the new module**" enter the MAC number of the new IPCOM module and press the "Save" button.

After successful registration, our IPCOM module will appear in the "**Tools**" list and will be available.

Configure an IPCOM module for output control

A To control the output with a control icon, you need to change the IO connection points to outputs in the IPCOM module settings. We use the "Terminal" program for this.

Terminal 2.50 Download

Open Device Manager in your PC operating system

Connect your USB cable compatible with the IPCOM device to the PC and search for the current COM connection point in Device Manager. Open the Terminal program, then the IP_COMM.et file shown in the picture and select IP COMM (Ethernet).

Open the "**Communication / Settings**" menu in the Terminal program, select the appropriate connection COM port next to the Serial port.
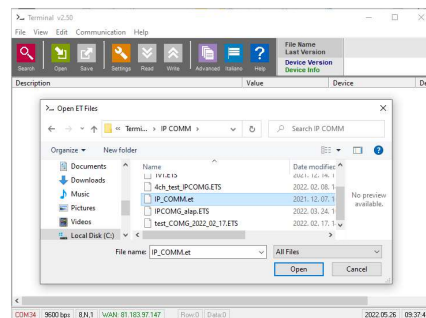
Read the module settings by pressing the "**Read**" button

Find the **IO settings** and change the input to output control type, then save the settings by pressing the "**Write**" button.

Download Cloud Manager application

Download the Cloud Manager application:

Apple Store
Download

Play Áruház
Download

Add control icon in Cloud Manager application

1. Make sure you are logged in to the Cloud Manager application with your registered email address. In the Tools menu, a check mark appears at the top of the screen to indicate the logged in status. If there is no check mark, click the enter button and enter your email address and password. (with which you registered the product)

2. Select the device you want to control in the Devices list.

3. At the bottom of the window that will open, in the Create icon row, click the ">" sign.

4. Press the "+" sign in the upper right corner

5. Select the cloud icon to create the control button.

6. Name the control icon (eg Holiday heater, Home gate, Lighting)

7. Select the background color and icon for the control icon.

8. Select between IO1 and IO2 and then the output type

(monostable / ON / OFF), in case of monostable the output control time. (1-65535s)

Clicking the Save button on your control icon is complete, available on the Control Menu in the main menu and ready to use.

IPCOM module at www.ascloudmanager.com

Place	Type	ID	Status	Status date	Last client login date
IPCOM 4G TECH	IPCOM 4G	BC8893128856		2021-12-02 15:05:30	2021-12-02 14:03:56

Showing 1 to 1 of 1 entries

Device status

We can see the current status of the output sor inputs of our device.

Green indicates the cloud connection status of our device.

The device is ONLINE

The color green means dormancy. Approaching your cursor displays the name you entered.
If the status of the output changes, the color will change to red and you will see an "Offline" message.

You can monitor output or input signal states on your device.

IO OUTPUTS status

 IO INPUT SIGNAL

 IO OUTPUT SIGNAL
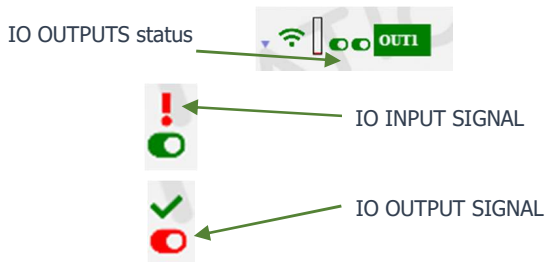
Notifications

There are two types of notifications:
- **system notifications**, which usually contain important messages about the server, development, or any system
- **status notifications**, where we receive e-mail notifications about the controls and conditions we have selected to the e-mail address we have also chosen.

Create notifications
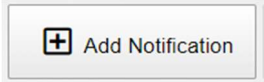
Push the „**Add notification**" button
Local signal
You can select the output or input of the IPCOM module depending on which one changes you want to be notified about.

Types you can specify the direction of the output change
OFF->ON Send a notification when turned ON
ON->OFF Send a notification when turned OFF
### Notified e-mail address
Select the e-mail address to which you want to send the notification. You can also personalize the message and subject field.

NOTE!
Depending on the user and e-mail address with which the module is registered, you may not see an e-mail address or the e-mail address to which you want to be notified. In this case, select the desired e-mail address from the Users menu and add the one to be notified for e-mail setup. After saving, log out and log back in at www.ascloudmanager.com.
Continue setting the notification to the desired email address.

Add an managing users

After registration, the e-mail address provided during registration will be displayed in the device.
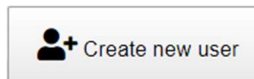(admin email address)
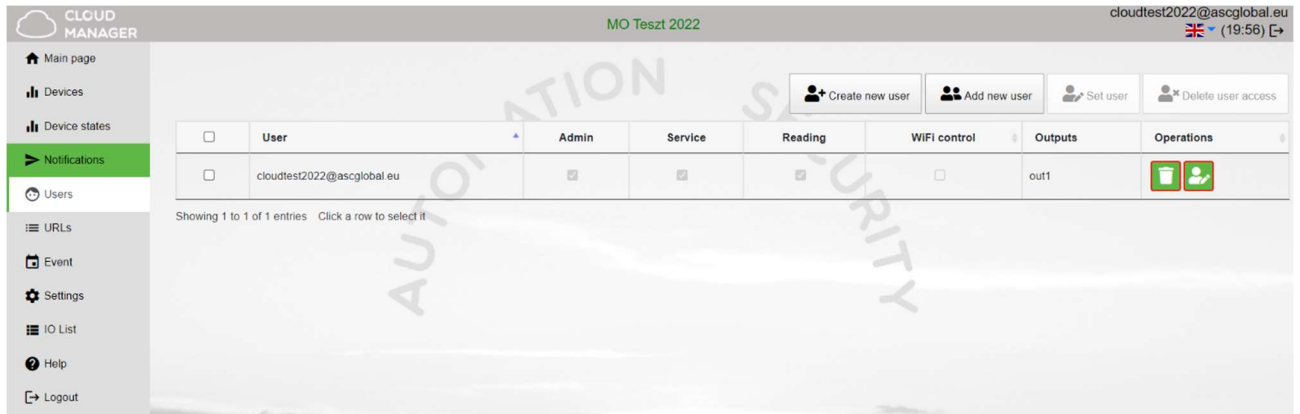
NOTES!
If you delete this email address from the list of users, we will not see the device the next time you log in!
If no users are saved to the device, the device will be automatically deleted from the database in a few days.
You can assign users to your device by entering a user email and password, you can make personal privileges to them.

The **number of users is unlimited**, so you can give access as you wish by entering an email address.
Each user can control the output of the MultiOne GSM module with privileges e-mail address.

Create new user

To create a new user, you may want to enter a daily email address to be notified of the status change. You can enable or restrict notifications.We have the ability to specify the language used to log in, so all users can easily and conveniently manage the device.

User:	login email address to www.ascloudmanager.com website
Password:	new user login password
Password again:	password confirmation
Contact name:	name for email address (fr identification, greeting)
Email of contact person:	You can receive notifications at the user's notification email address. If you do not want to be notified, select "I do not want to be notified".
Residence (country):	Select the country where you live
Preferred language (native):	Select your native language
Webpage language:	Select the language of the website. When opened, all functions can be read in this language. Our service is constantly expanding, currently available in 5 languages. The language of the page can be changed after logging in.
Role:	Select you user status (Enduser, Installer)

Give additional users access. You can give users individual permissions.

Add more users

User:	new user email address
Password:	new user login password
Admin:	Administrator access
	You have all permissions except to delete the user who created the permission.
Service:	Reading permission, allows access to service data related to the operation of the module.
Reading:	Reading permission
WIFI control:	Here we can define what area of use we provide to our user. If selected, the user can only control the output within the local WIFI network.
out1:	Assign user output to control.

After saving, the settings can be used immediately.

Modify user information

 By clicking on the "Set user" button, all user data can be changed. You can change your own or other users' login passwords. If you no longer need access, you can delete it.
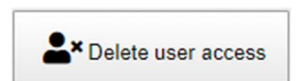
NOTE!

Just as we have created a user, we can delete it. Pay special attention to deleting the email address created as an admin from the users queue, no longer seeing the device the next time you log in, and if no users have been saved to the device, the device will be automatically deleted from the database.

Create URL control icon

In URL menu, you can use the "Add new URL" button to create a control icon for your desktop PC or laptop.
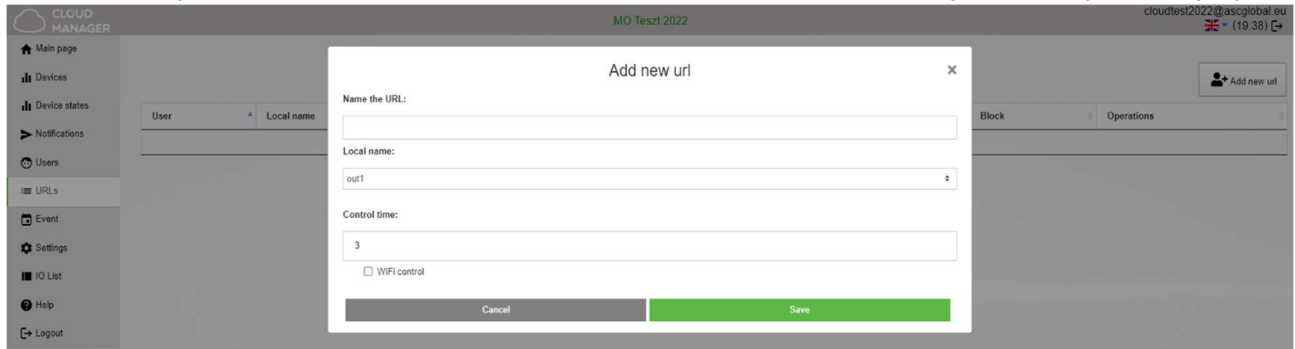
Name the control icon that can be controlled from the PC.

Here you can also specify whether to check the local WIFI availability for control. If the WIFI limit is enabled, their control icon will only be used within the scope of the local WIFI network. Turning this off will allow you to control the output from anywhere with an Internet connection. An excellent service for allocating rights.

Drag to the screen with the left mouse button and the URL will already operate the device connected to the output.

You can edit your existing URL connection. You can change your settings or disable them.

If you no longer want to use it, simply delete it with the appropriate symbol.

TECHNICAL DATA

Product	IPCOM	IPCOM-S
Power supply	10,5 – 15 Vdc	
Maximum current consumption	160 mA	
Event receiving (through tel. line)	Yes	–
Event receiving (through serial)	Yes	
Input / Output	2	–
Output type / Load capacity	Open collector / max. 50 mA	–
Expansion	up to 16 inputs with IP IO8 modules	
Ethernet connector	10 Base-T	
Event buffer	up to 64 events	
Operating temperature	0 °C / 50 °C	
Sizes (W / L / H)	48 x 42 x 15 mm	
Weight	40 g	