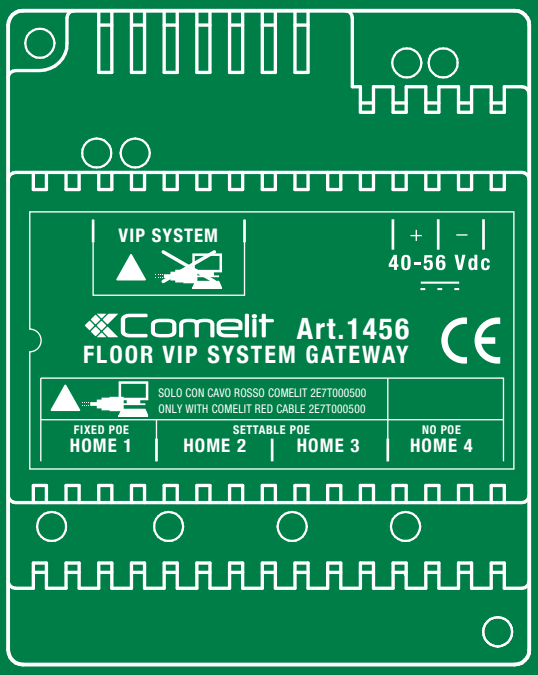
EN

TECHNICAL
MANUAL



Apartment gateway 1456 /1456S

Comelit®
Passion. Technology. Design.

Warning

Intended use

This Comelit product was designed for use in the creation of audio and video communication systems in residential, commercial or industrial settings and in public buildings or buildings used by the public.

Installation

All activities connected to the installation of Comelit products must be carried out by qualified technical personnel, with careful observation of the indications provided in the Manuals / Instruction sheets supplied with those products.

Wires

Cut off the power supply before carrying out any maintenance procedures.

Use wires with a cross-section suited to the distances involved, observing the instructions provided in the system manual.

We advise against running the system wires through the same duct as the power cables (230V or higher).

Safe usage

To ensure Comelit products are used safely:

- carefully observe the indications provided in the Manuals / Instruction sheets
- make sure the system created using Comelit products has not been tampered with / damaged.

Maintenance

Comelit products do not require maintenance aside from routine cleaning, which should be carried out in accordance with the indications provided in the Manuals / Instruction sheets.

Any repair work must be carried out

- for the products themselves, exclusively by **Comelit Group S.p.A.**,
- for systems, by qualified technical personnel.

Disclaimer

Comelit Group S.p.A. does not assume any responsibility for

- any usage other than the intended use
- non-observance of the indications and warnings contained in this Manual / Instruction sheet.

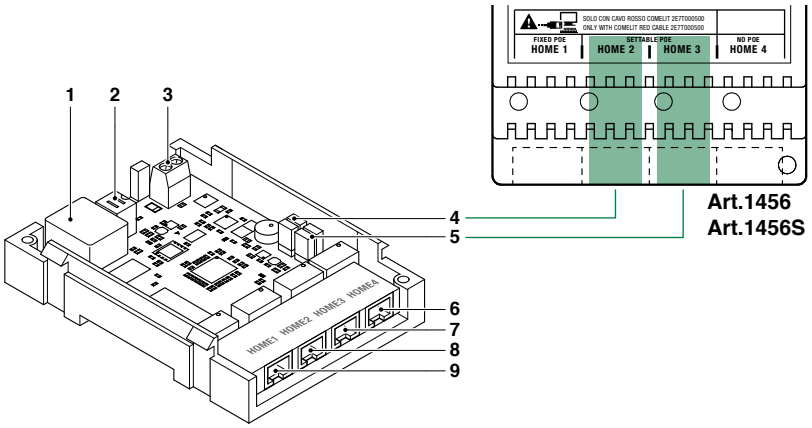
Comelit Group S.p.A. nonetheless reserves the right to change the information provided in this Manual / Instruction sheet at any time and without prior notice.

Table of contents

Description

Article 1456 / 1456S is a single-apartment gateway that:

- can serve up to a maximum of 15 slave devices connected to the apartment;
- answer calls from a external unit via a virtual door entry monitor App for smart phone/tablet or using a normal GSM or landline telephone;
- incorporates the SIP protocol to enable telephone calls via SIP server or via virtual lines purchased from a SIP services provider;
- can be configured remotely from a web interface;
- in the master version (Art. 1456), does not require door entry monitors to be connected.



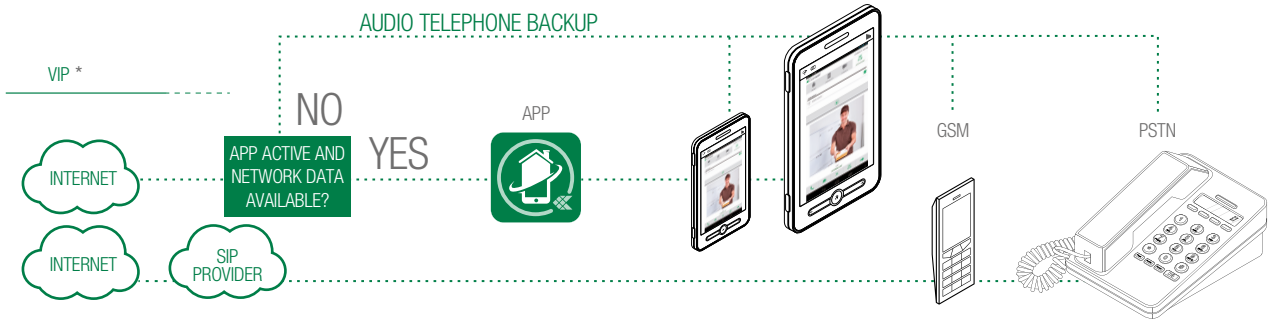
1. Ethernet port for ViP system riser input (default addressing: **“Autoip”**).
2. Dip switches for the procedures **“Reboot with predetermined network settings”** and **“Restoring factory settings”**.
3. Power supply input via **Art. 1441, Art. 1441B**.
4. **CV1** and **CV2** for setting port **HOME2.**
5. **CV3** and **CV4** for setting port **HOME3.**
6. **HOME4 non POE** Ethernet port for PC or router connection (default: **“Static IP address”** 192.168.1.200, netmask 255.255.255.0).
7. **HOME3** **“POE”** settable Ethernet port **non POE** (default: **“Static IP address”** 192.168.1.200, netmask 255.255.255.0).
8. **HOME2** **“POE”** settable Ethernet port **non POE** (default: **“Static IP address”** 192.168.1.200, netmask 255.255.255.0).
9. **HOME1** Ethernet port **“POE”** (default: **“Static IP address”** 192.168.1.200, netmask 255.255.255.0).

With port “POE” DO NOT use standard Ethernet to connect to the router or to the PC; use only the red Comelit cable Art. 1449 to connect to the router or to the PC.

Art. 1456 functions:

- Master door entry monitor not required (already integrated in the 1456)
- Up to 15 slaves devices can be added for each apartment, including: Smartphone / Tablet + Comelit App, PSTN / GSM Telephone, Door entry phone (configured as Slave)

Example:



If a monitor is subsequently added:

- ***the monitor must be programmed in slave mode,***

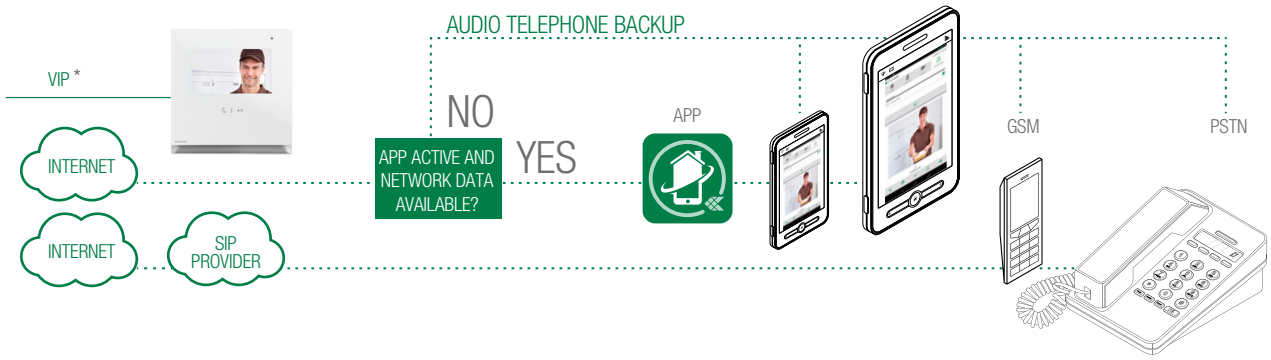
or

- ***it may be programmed in master mode provided that the gateway is configured with a "slave" license (see: "6) Users configuration (devices)")***

Art. 1456S functions:

- A master door entry monitor is required.
- Up to 15 slaves devices can be added for each apartment, including: Smartphone / Tablet + Comelit App, PSTN / GSM Telephone, additional door entry phones (configured as Slave).

Example:

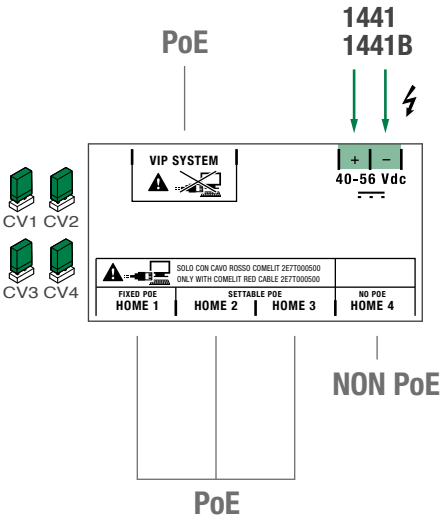


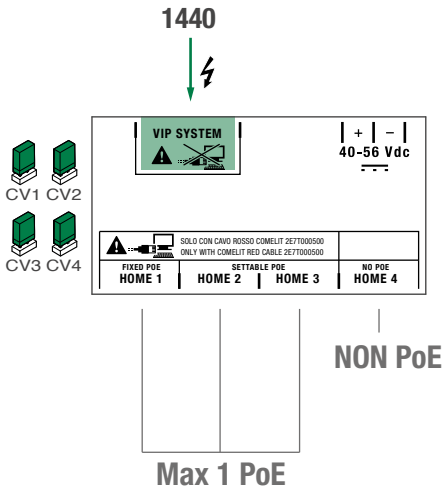
* it is possible to add ViP internal units in Slave mode

Settable POE

	SETTABLE POE	
	HOME2	**HOME3**
SETTABLE	CV1 CV2 **NO POE** STANDARD ETHERNET	CV3 CV4 **NO POE** STANDARD ETHERNET
DEFAULT	CV1 CV2 **POE** DO NOT USE STANDARD ETHERNET **Only connect to the router or PC using the red Comelit cable 1449**	CV3 CV4 **POE** DO NOT USE STANDARD ETHERNET **Only connect to the router or PC using the red Comelit cable 1449**

With the device powered by Art. 1440 via port VIP SYSTEM, there will be sufficient PoE power available to operate a maximum of 1 door as "POE" on port HOME1, HOME2 or HOME3.





Technical characteristics

MAIN FEATURES	
Compatible system	ViP
DIN rail mounted	Yes
DIN modules (no.)	4
Power supply voltage	48Vdc - 56Vdc
Min/max power consumption (mA)	50mA
Operating temperature (°C)	+5°C to +40°C
Operating relative humidity	25% / 75%
IP protection rating	IP30

GENERAL DATA	
Product height (mm)	62
Product width (mm)	70
Product depth (mm)	90

Configuration Art.1456 / 1456S

✓ This operation requires a PC loaded with the software ViP Manager version 2.5.0 or later (downloadable from the website pro.comelitgroup.com).

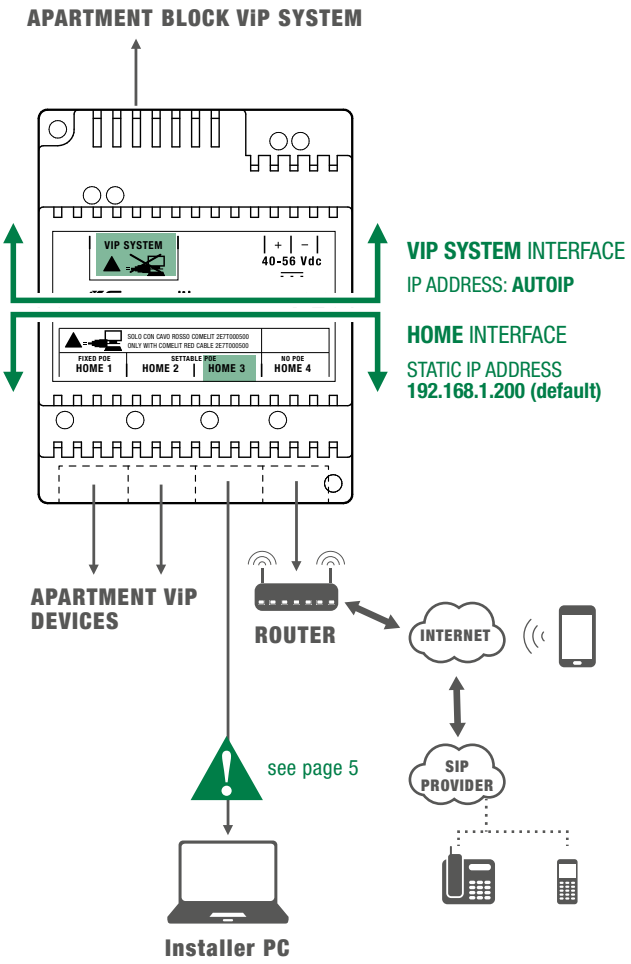
✓ An active internet connection is also required.

Art. 1456S requires an internal unit assigned to a master monitor.

1) Connection

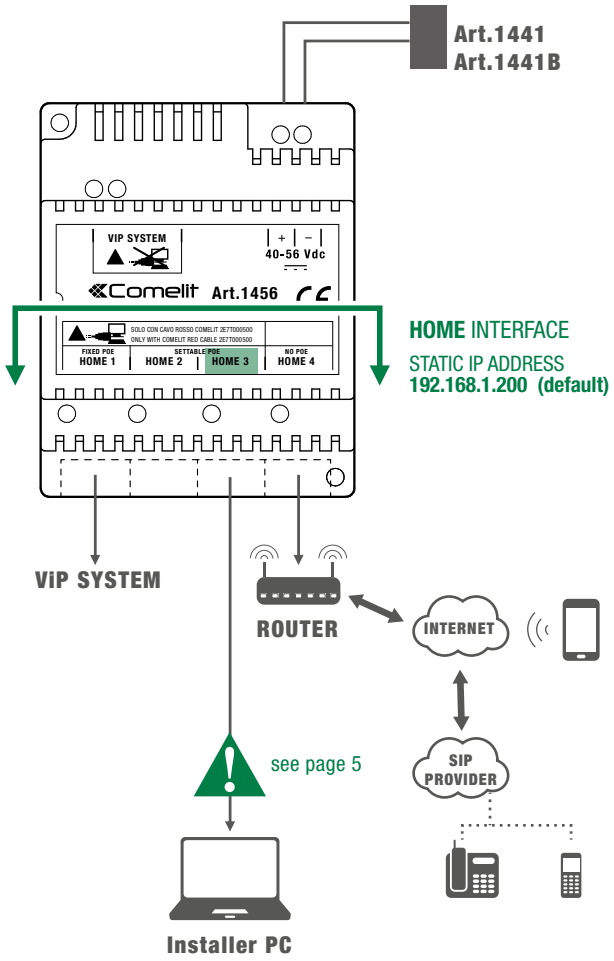
▶ Article 1456/1456S has 2 network interfaces, HOME and VIP SYSTEM, labelled for easy identification, which can be configured separately to meet different system requirements. Depending on the type of system, connect the devices as shown in the following figures:

MULTI-RESIDENTIAL SYSTEM



Take particular care with regard to the network interface settings and do not configure interfaces ViP SYSTEM and HOME with the same addresses or similar parameters: each IP address must be unequivocal, the addresses of the interfaces ViP SYSTEM and HOME must not belong to the same subnet.

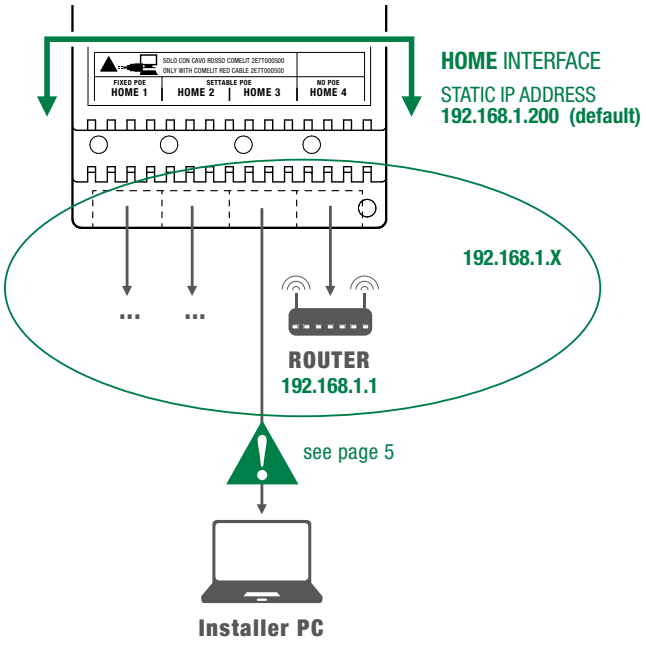
KIT SYSTEM



All system devices form part of a single network, so it it is only necessary to configure interface HOME.
In this case, DO NOT alter the configuration of interface VIP SYSTEM.

2) ViP Manager addressing

CASE 1: default address of the device (192.168.1.200) belonging to the same router network (e.g.: 192.168.1.1)

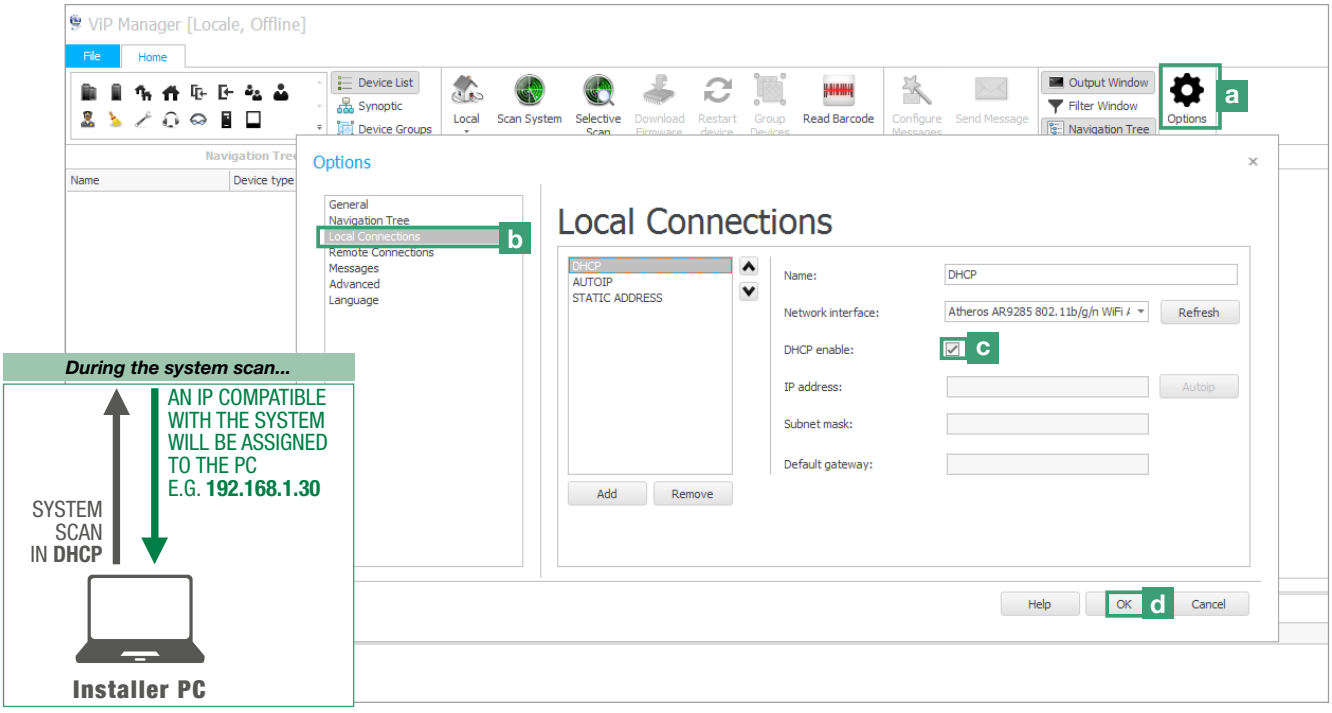


PERFORM A DHCP SYSTEM SCAN AND ASSIGN A ViP ADDRESS

Follow the procedure below to perform a system scan in **"DHCP"**, *to locate all the devices connected to interfaces VIP SYSTEM and HOME:*

- *an IP address will be automatically assigned to the devices in addressing mode* **"Autoip"** *(connected to interface VIP SYSTEM);*
- *an IP address will be automatically assigned to the devices in addressing mode* **"DHCP"** *(connected to interface HOME), if the system is connected to a server with the function* **"DHCP"** *active;*
- *devices with* **"Static IP address"** *will be identified only if they have a network address that is compatible with that of interface HOME.*

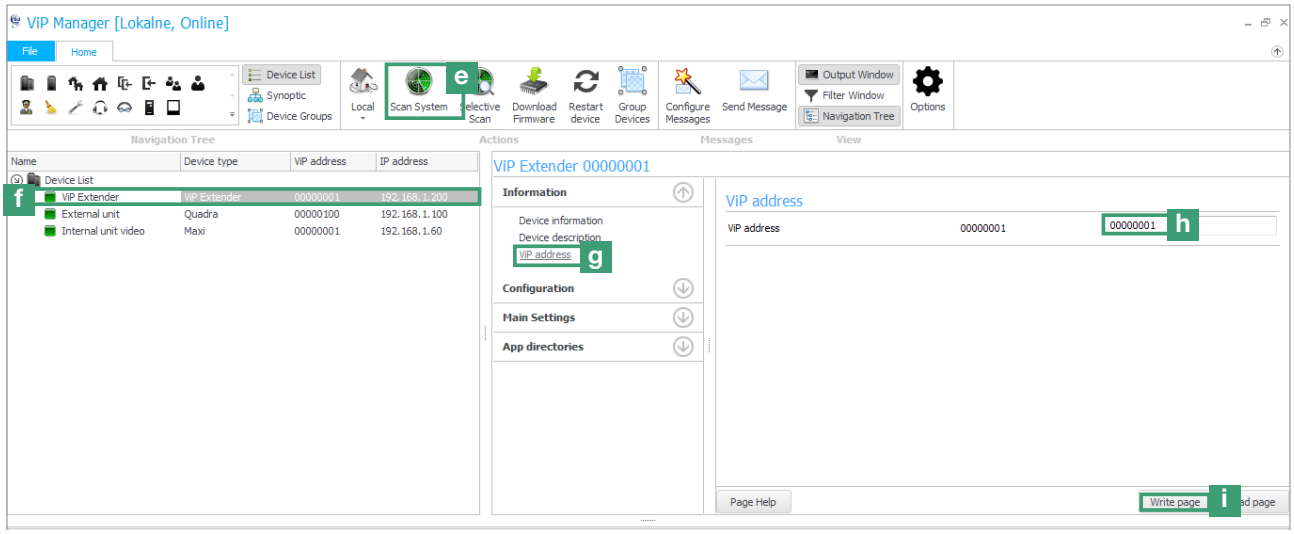
1. From **Options [a]** / **Local connections [b]** tick **DHCP Enable [c]** and confirm **[d]**.



2. Launch the system scan by pressing **Scan System [e]**.

   » *all the devices connected to the system will be displayed in the device list.*

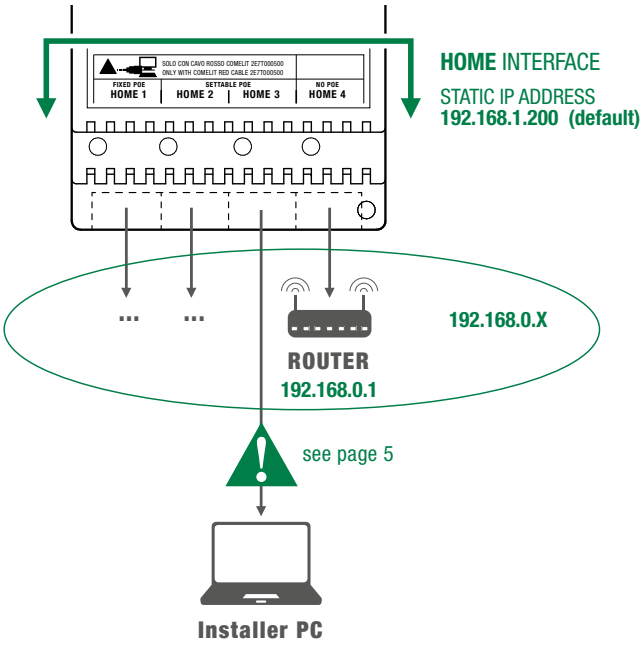
3. Select art.1456 / 1456S [f], select **Information/ViP address [g]**, assign the Vip address **[h]** to the apartment and press **Write page [i]** to save the current settings.



In the case of a system with 2 1456 / 1456S devices, it will be necessary to assign to interface HOME of one of the two devices a new "Static IP address" (as described in "case 2"), as each device must have a unequivocal IP address.

CASE 2: default address of the device (192.168.1.200) NOT belonging to the same router network (e.g.: 192.168.0.1)

interface HOME must be assigned a new "Static IP address" belonging to the same network as the devices connected to interface HOME

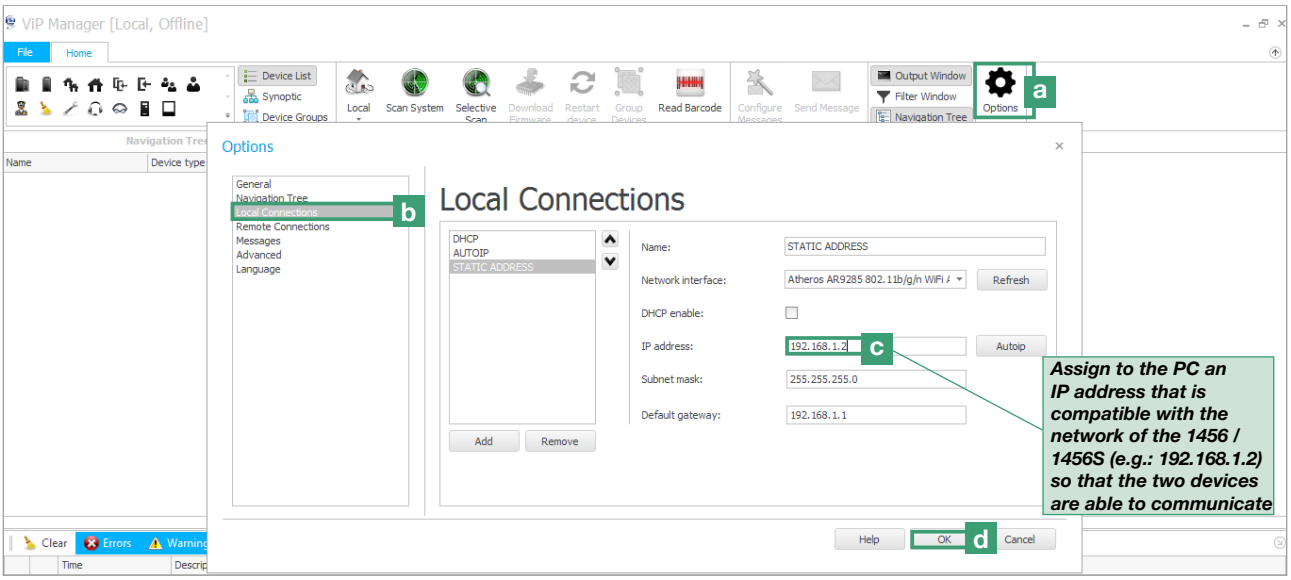


ASSIGN A NEW STATIC IP ADDRESS TO INTERFACE HOME

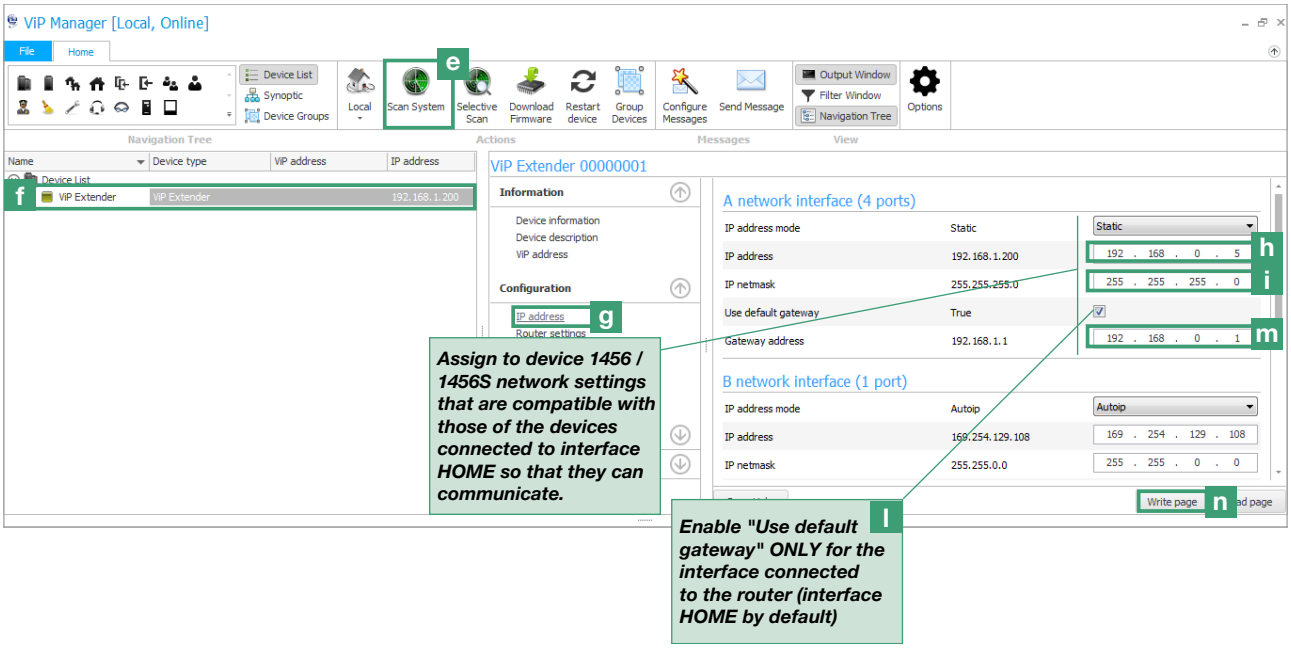
The following procedure describes how to assign network settings to the device 1456 / 1456S that are compatible with those of the devices connected to interface HOME.

1. Open the software ViP Manager version 2.5.0 or later (downloadable from the website pro.comelitgroup.com).
2. From **Options [a]** / **Local connections [b]** untick the DHCP enable box and assign an IP address to your PC **[c]** (in the example: 192.168.1.2)* that belongs to the same network as the IP address of interface HOME (default=192.168.1.200)and confirm **[d]**.

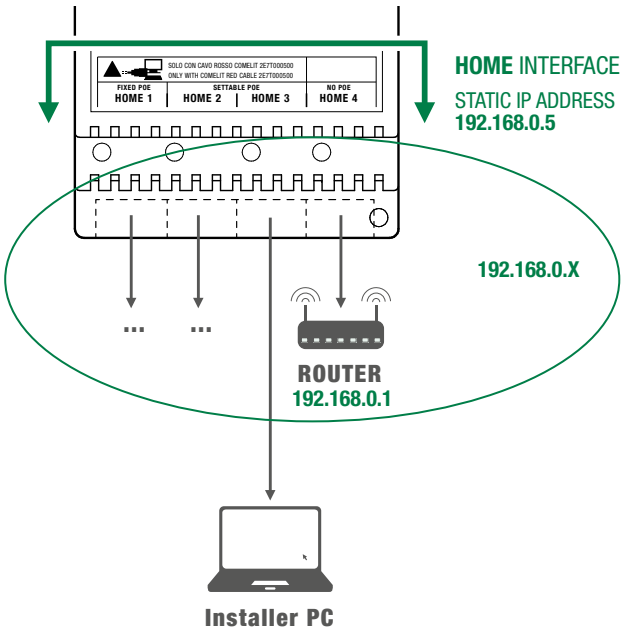
***the last value must be within the range of 2 to 253 excluding:** 200 (assigned to the gateway Art. 1456 /1456S) and the values already assigned to other devices connected to the network.



3. Launch the system scan by pressing **Scan System [e]**
   » *the 1456 / 1456S will appear in the device list* **[f]**
4. In **Configuration/ IP address [g]** assign device 1456 / 1456S a **"Static IP address" [h]** and an **IP netmask [i]** compatible with the system, for example **IP: 192.168.0.5, netmask: 255.255.255.0** (warning: the IP address must **not** already be in use).
5. Enable "Use default gateway" **[l]** ONLY for the interface connected to the router (interface A by default)
6. Set the gateway address **[m]**, for example **192.168.0.1** press **Write page [n]** to save the current settings.



» *device 1456 / 1456S will now be in the same network as the router* ***(192.168.0.X)***



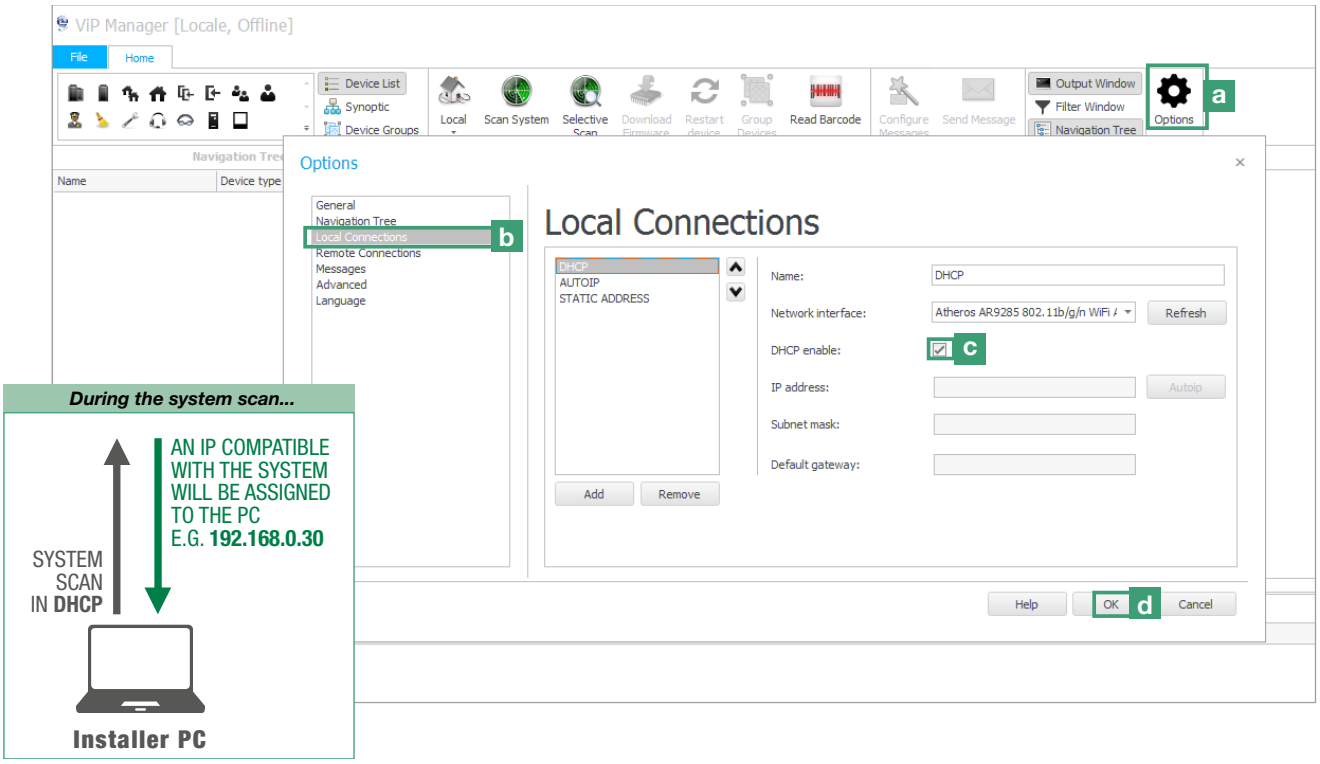
In the cases of "ViP Network + Internet connection network" systems, take particular care with regard to the network interface settings and do not configure interfaces HOME e VIP SYSTEM with the same addresses or similar parameters: each IP address must be unequivocal, the addresses of the interfaces HOME e VIP SYSTEM must not belong to the same subnet.

PERFORM A DHCP SYSTEM SCAN AND ASSIGN A ViP ADDRESS

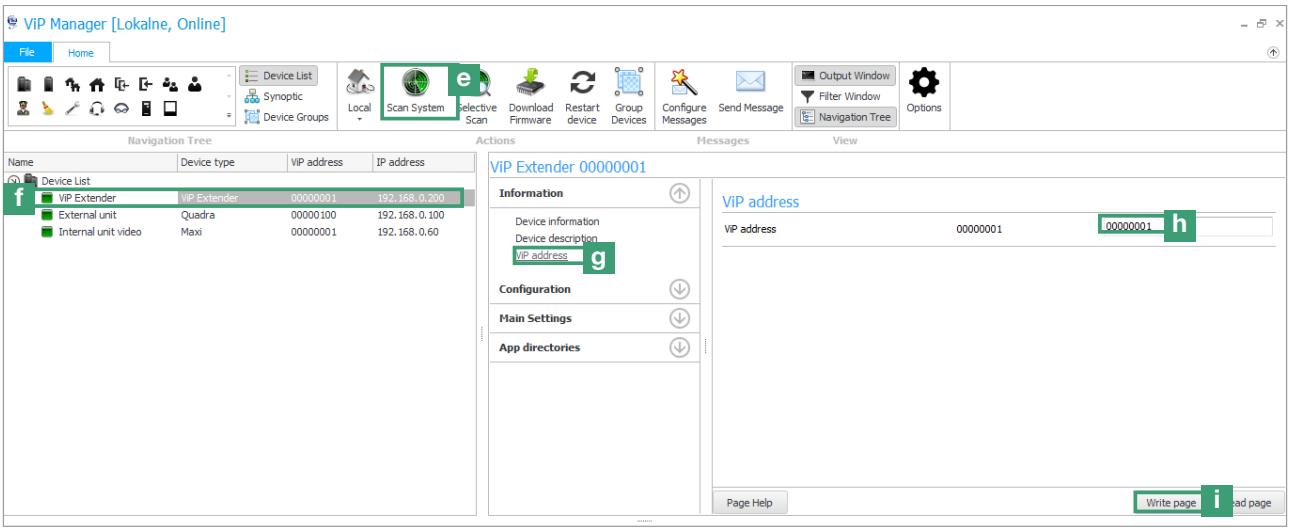
*Follow the procedure below to perform a system scan in **"DHCP"**, to locate all the devices connected to interfaces HOME and VIP SYSTEM:*

- *an IP address will be automatically assigned to the devices in addressing mode **"Autoip"** (connected to interface VIP SYSTEM);*
- *an IP address will be automatically assigned to the devices in addressing mode **"DHCP"** (connected to interface HOME), if the system is connected to a server with the function active;*
- *devices with **"Static IP address"** will be identified only if they have a network address that is compatible with that of interface HOME.*

1. From **Options [a] / Local connections [b]** tick **DHCP Enable [c]** and confirm **[d]**.



2. Launch the system scan by pressing **Scan System [e]**.
   » *all the devices connected to the system will be displayed in the device list.*
3. Select art.1456 / 1456S **[f]**, select **Information/ViP address [g]**, assign the Vip address **[h]** to the apartment **[h]** and press **Write page [i]** to save the current settings.



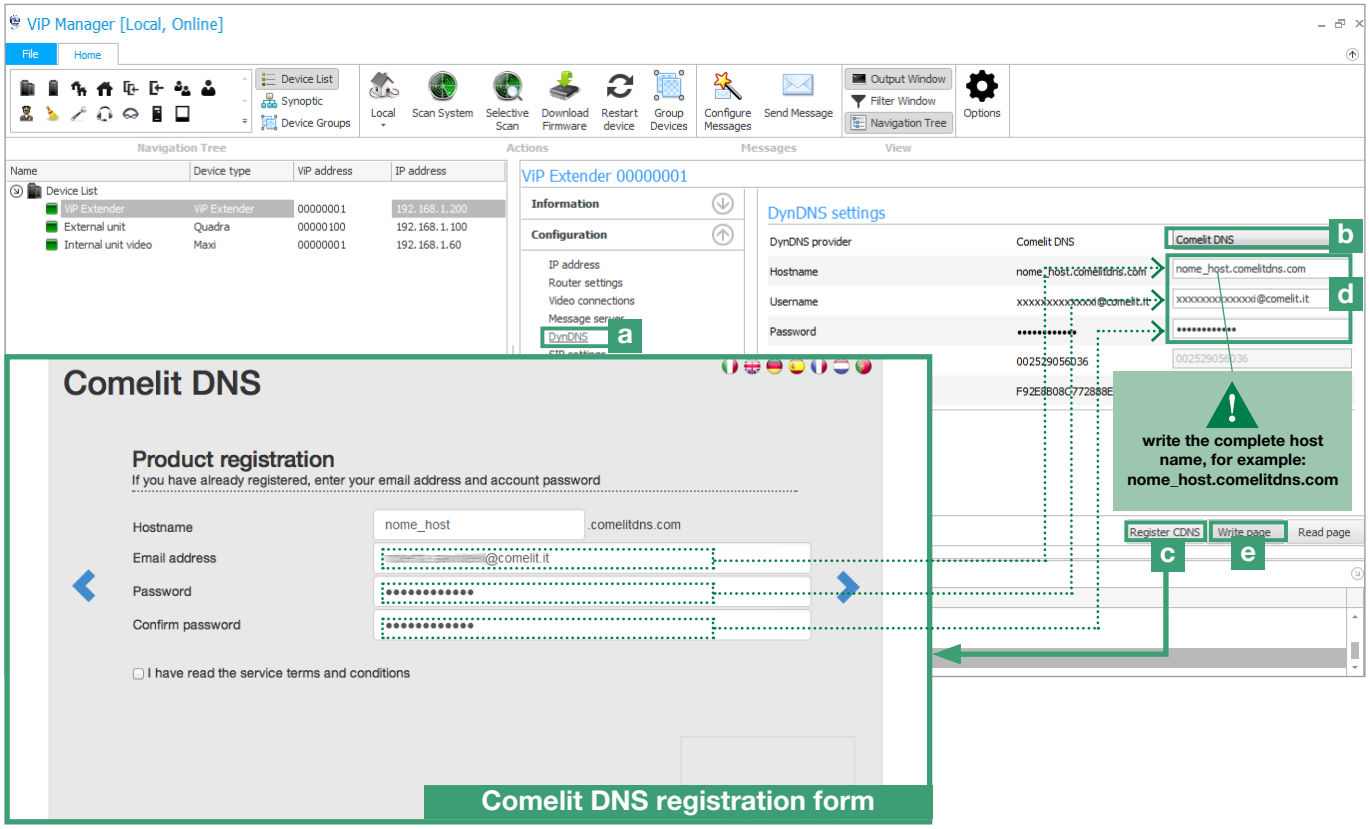
3) DynDNS configuration for remote connection

*The DynDNS address (**"Dynamic DNS"**) allows a DNS name to be permanently associated with the IP address of the same host, even if that address subsequently changes.*

A DynDNS must be registered in order to make the 1456 /1456S accessible from a remote web page and to allow operation of the Comelit application.

✓ **an active internet connection is also required.**

1. Select article 1456 /1456S and select **Configuration/DynDNS [a].**
2. Select **ComelitDNS [b]** in order to use the free ComelitDNS service.
3. Press **Register CDNS [c]** to register a ComelitDNS hostname.
4. Complete the registration panel (**NB:** make a note of the data entered or copy and paste them directly into the configuration page) and press › to complete the registration.
5. Enter the "hostname", "user name" and "password" in the **"DynDNS settings"** screen of the ViP Manager software **[d].**
6. Press **Write page [e]** to confirm the current settings.



4) Port Forwarding setting for remote connection

Port forwarding *is the operation that allows the transfer of data from one device to another via a specific communication port. This procedure enables an external user (mobile phone) to access a device on a local network (1456 /1456S).*
*The procedure for opening router ports for device 1456 /1456S is required in order to allow remote access to the system via a web page (**port TCP 8080**) and via an App (**port TCP 64100*, port UDP 64100***).*

*** The 64100 port is not available for a number of Internet providers, in this case we suggest to use the following ports 25, 80, 110, 143 or to contact the relative Internet provider.**

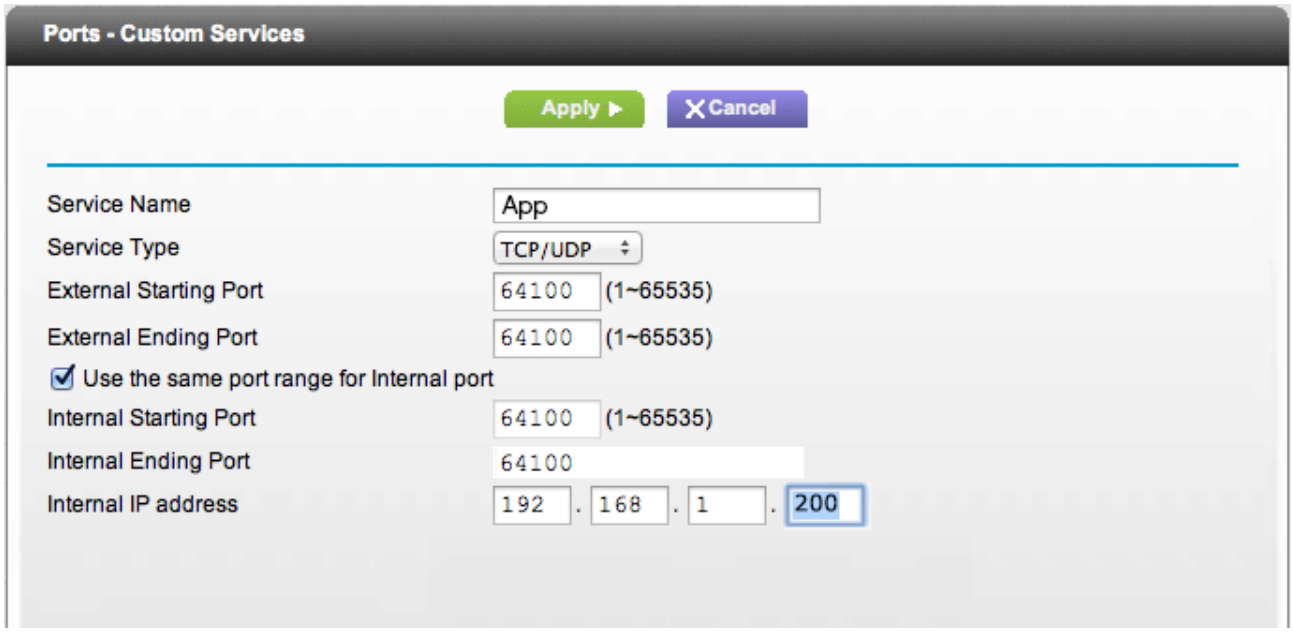
✓ **With the PC still connected to art. 1456 /1456S**

1. Access the browser and enter the IP address of the router in the navigation bar, for example: **192.168.1.1**

2. Log in by entering the username and password (these can be found in the router user manual).

The port configuration method may differ according to the brand and type of router used

3. Search for the sections “Port Opening” or “Apps and games” or “Port Forwarding” (if not displayed on the main menu, search for them in Advanced settings) and add the ports you wish to configure.
4. Fill in the configuration panel (see example in the figure below):
   a. Enter a name.
   b. Select the desired protocol (**TCP** for the port 8080, **TCP/UDP** for port 64100).
   c. Enter the desired value for the external port (for example: 8080 / 64100), enter the same value in Start and in End if you wish to open a single port.
   d. For the internal port, enter the desired value (8080 / 64100); enter the same value in Start and End fields to open a single port.
   e. Enter the IP address of the ViP gateway, for example (default= **192.168.1.200**).
   f. Confirm.
5. Repeat the procedure for each port you wish to open.



5) SIP settings

The SIP settings configuration procedure is only to be used when you wish to channel a door entry phone communication to a SIP digital telephone line (PSTN/GSM).

It is possible to acquire up to 15 SIP telephone lines. Each phone line is a communication channel: when a call is received from an external unit to landline or mobile phone, the first available SIP line is used.

One line must be acquired for each telephone device in the system.
Purchase the desired number of SIP phone lines (max 15) from a SIP services provider: each phone line is a valid account on the SIP server used to make telephone calls; the user settings and password are to be entered in the "SIP phone lines" screen.

1. Select the device 1456B and select **Main Settings/SIP settings [a]**.
2. Enter the IP address/hostname of the SIP service provider (for example: sip.messagenet.it) and the UDP port of the server supplied by the service provider (for example: 5061) **[b]**.
3. Leave the parameter **"Codec preference"[c]** (for audio encoding/decoding) on the default setting: PCMA/PCMU.

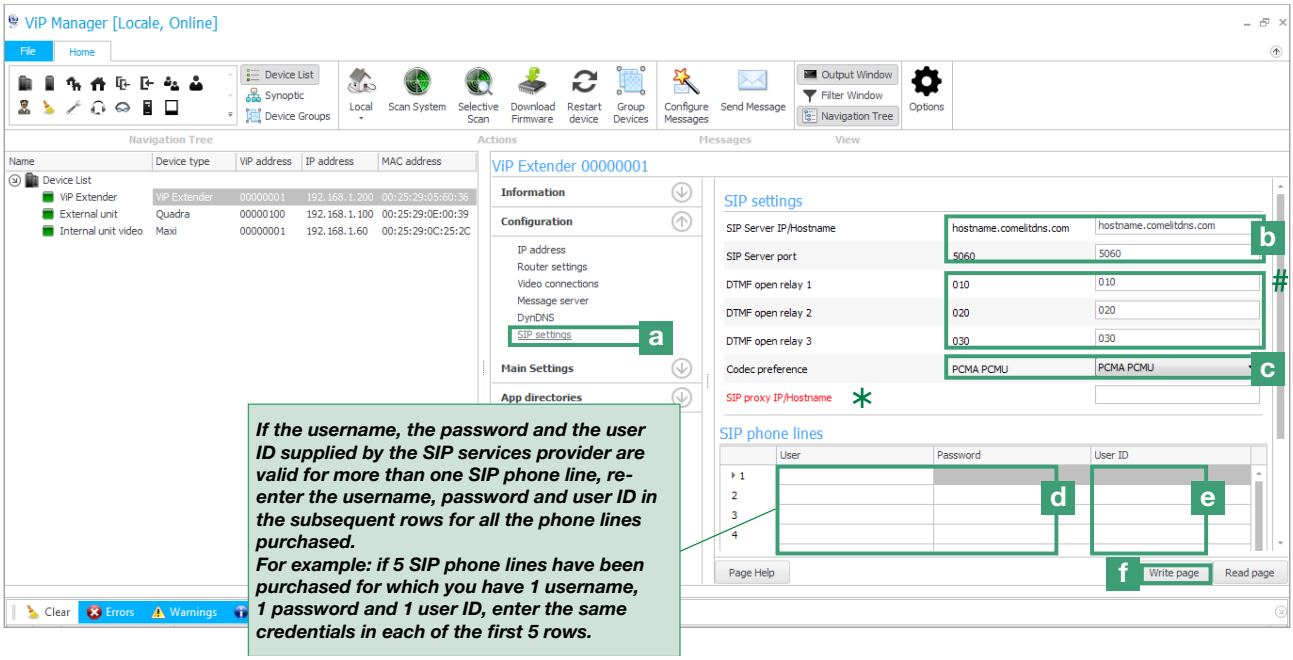
US users only, select the codec PCMU. 

\# **DTMF relay opening 1/2/3:** sequence of keys to press (minimum 3, maximum 6) to send a command to activate the relay from a telephone (the default values can be changed)

* **Proxy SIP address (secondary SIP server):** normally not necessary, can be left blank.

Access to the SIP lines is controlled by the username and password supplied by the SIP services provider when the line is purchased. Some providers also provide a User ID (which can be variously designated "User authentication", "user auth" or "user ID". The procedure for phone lines configuration is described below.

4. For each SIP phone line purchased, enter the respective username and password **[d]**.
5. For each SIP phone line purchased, enter the **user ID [e]** only if this has been provided by the SIP services provider, otherwise leave the field blank.
6. Press **Write page [f]** to save the current settings.

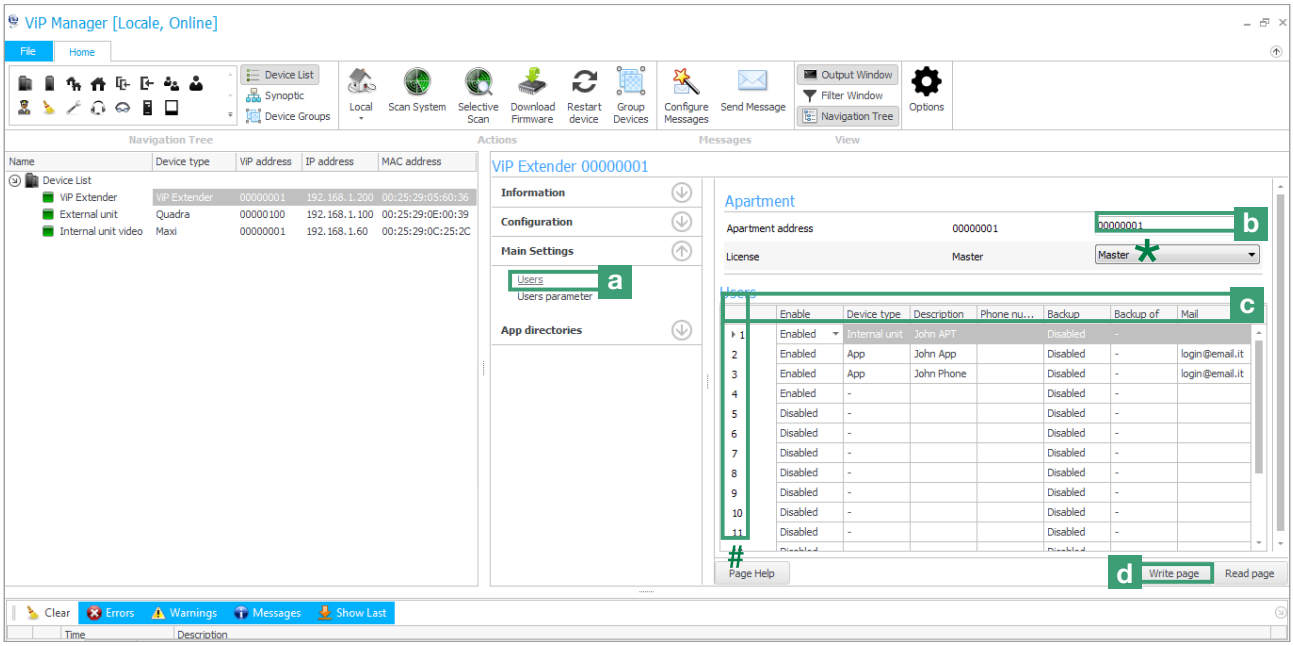


A maximum of 15 SIP phone lines may be enabled.
The lines are shared by all the system users connected to the device 1456 / 1456S and are managed according to the rule "First come, first served".

6) Users configuration (devices)

In this page you can configure the slave devices that can be activated in the apartment (max. 15). Each device is identified by its slave number. Each device must be assigned a type (internal unit, app or telephone), a description, the phone number (in the case of a telephone/mobile phone).

1. Select device 1456 /1456S and select **Main Settings/Users [a].**
2. Enter the ViP address of the apartment **[b]**
3. Configure the individual devices (max 15 per apartment) **[c]**:
   - **Enabling:** enable/disable the device for the apartment by selecting **Enabled/Disabled**.
   - **Device type:** assign the type of device choosing between:
     Internal unit: Comelit ViP internal unit;
     App: Comelit App for Android or Apple devices (consult the relative manual for further details);
     Telephone: virtual ViP device controlled by the 1456 / 1456S and used to make phone calls to a landline or mobile phone.
   - **Description:** Description: enter a description to unequivocally identify the device.
   - **Phone number:** if you are configuring a telephone, enter the phone number of the device.
   - **Backup:** enable/disable the backup line to configure the current device as a backup unit to which failed calls to the device specified in the adjacent column (“Backup of”) are to be forwarded.
   - **Backup of:** specify the device to be backed up by selecting the corresponding slave device.
     Example backup: the slave 3 phone number (John Phone) is enabled as the backup unit of the App slave 1 (John App) installed on the same device --> If the App “John App” cannot be reached, after a few seconds the call will be redirected to the phone number “John Phone”.
   - **Mail:** enter the email address of the user for whom you wish enable use of the App.
4. Press **Write page [d]** to save the current settings.



* For art. 1456 only: from the pull-down menu you can change the license from “Master” to “Slave” (in the event of subsequent addition of a monitor).

\# **Slave ID of the device**

The apartment supports 15 devices, each associated with a device ID (slave number) that identifies the device within the apartment.The device ID assigned in this page must correspond to that assigned to the same device in the page “Addressing/ViP address”.

It is advisable to assign the slave numbers 1-2-3 to devices that can receive the video signal(internal units/ applications), so that during a call they can receive the video signal directly, without the user having to press a video request button.

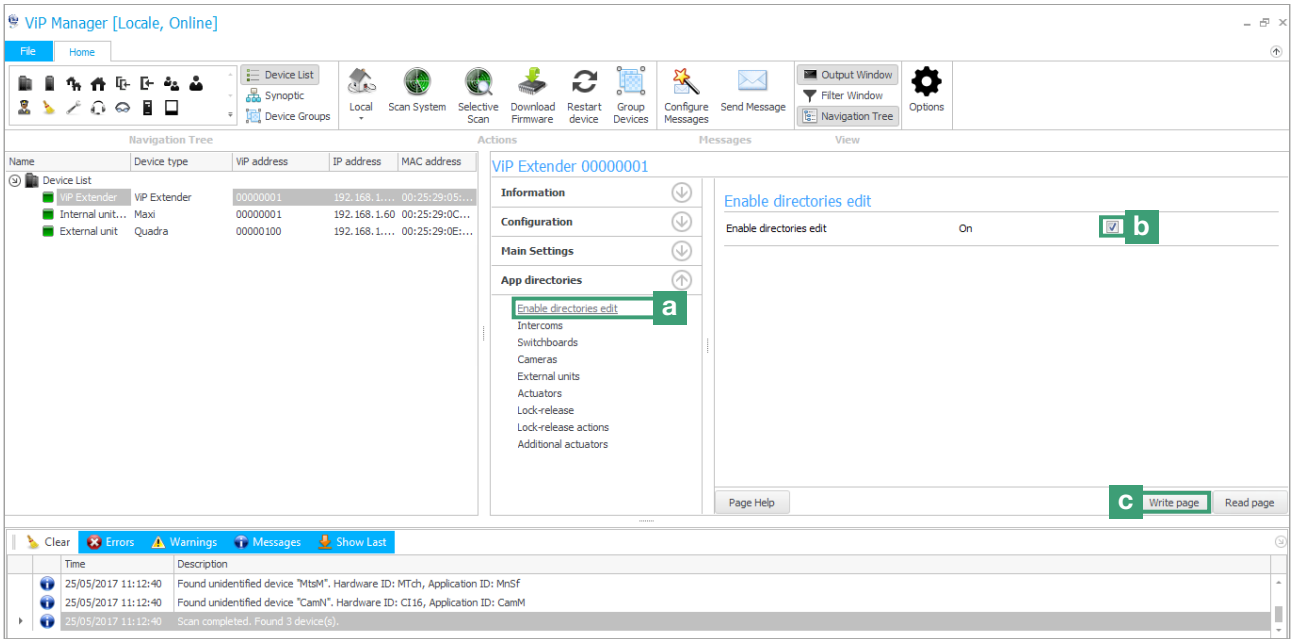
7) App Directories Configuration

*In the section **“App directories”** it is possible to configure the directories and enable the possibility to make modifications visible on the individual devices.*

The directory can contain elements of different types: Intercoms (addresses of apartments or individual devices), Switchboards, Cameras, External Units, Actuators, Lock releases, Lock release actions, Additional Actuators.

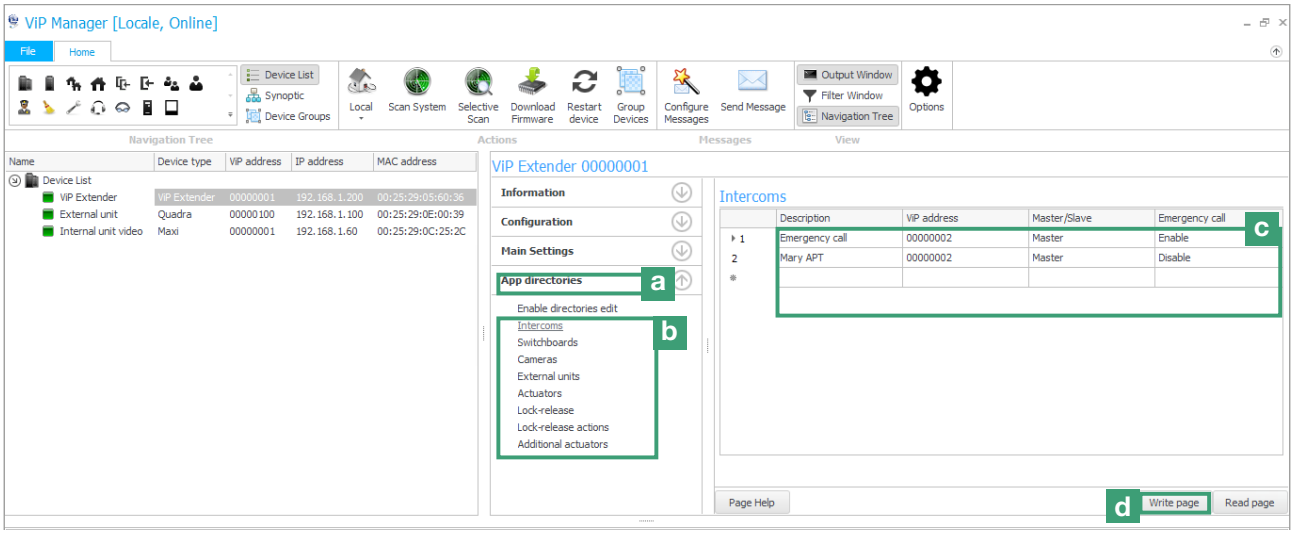
Enable directory modifications

1. Select art. 1456 / 1456S and select **App directories/Enable directory modifications [a].**
2. Tick **Enable directory modifications [b]**
3. Press **Write page [c]** to save the current settings.



Directory enhancement

1. Select art. 1456 / 1456S and select **App directories [a]**
2. Select the element you wish to add to the directory (Intercoms, Switchboards, Cameras, External Units, Actuators, Lock releases, Lock release actions, Additional Actuators) **[b]**.
3. Complete the mandatory fields **(see: “Intercoms”, “Switchboards”, “Cameras”, “External Units”, “Actuators”, “Lock-release”, “Lock-release Actions”, “Additional Actuators”) [c]**.
4. Press **Write page [d]** to add the element to the directory.



Intercoms

▶ Configure the call to an entire apartment or to an individual device within the apartment, by completing the following fields:

Description	Enter the description.
ViP address	Enter the ViP address
Master/Slave	From the pull-down menu, choose whether to configure a call to the entire apartment or only to the master monitor or to a slave monitor, as required.
Emergency call	From the pull-down menu, choose whether to **enable or disable** a priority emergency call (on the App the contact will be identified by a red cross) **N.B. only 1 emergency contact can be set**

Switchboards

▶ Configure the call to a switchboard by completing the following fields:

Description	Enter the description
ViP address	Enter the ViP address
Emergency call	From the pull-down menu, choose whether to **enable or disable** a priority emergency call (on the App the contact will be identified by a red cross) **N.B. only 1 emergency contact can be set**

Cameras

▶ Configure the self-ignition of a camera by completing the following fields:

Description	Enter the description
ViP address	Enter the ViP address
Camera	Select the desired camera from the pull-down menu.

External Units

▶ Configure the activation of the relay of an external unit completing the following fields:

Description	Enter the description
ViP address	Enter the ViP address

Actuators

▶ Configure the activation of an actuator (Generic actuator, Shutter, Door, Lighting..) by completing the following fields:

Description	Enter the description
ViP address	Enter the ViP address
Expansion index	Select the "actuator module" or expansion you wish to to control from the pull-down menu (from 1 to 10)
Output index	From the pull-down menu, select the number of the relay (1 or 2) or the expansion number (from 1 to 10) that you wish to control

Lock-release

▶ Configure the activation of the lock-release relay by completing the following fields:

Description	Enter the description
ViP address	Enter the ViP address
Output index	Select the number of the output you wish to to control from the pull-down menu (from 1 to 3)

Lock-release Actions

▶ Configure the **Lock-release button**, by completing the following fields:

Type	Select from the pull-down menu: **disabled:** to disable the button **peer:** to control the relay of the external unit in communication **fixed-addr:** to control a specific relay
ViP address	Enter the ViP address
Output index	Select the number of the output you wish to to control from the pull-down menu (from 1 to 3)

Additional Actuators

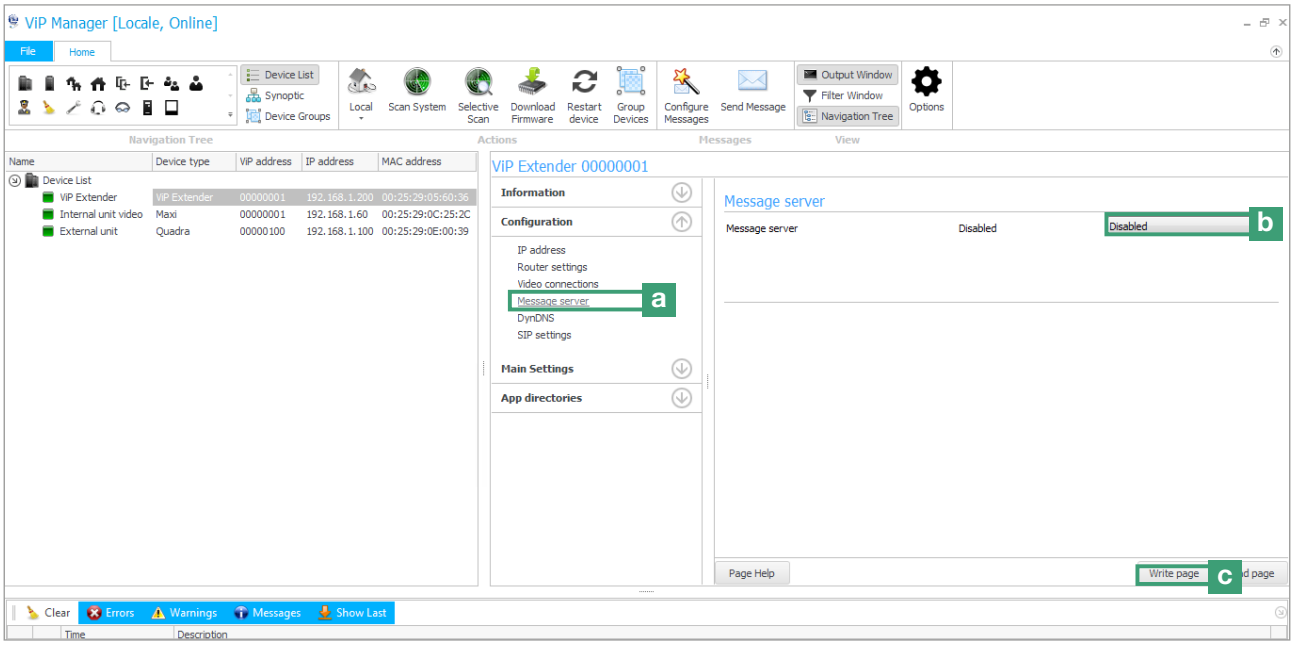
- Configure the **Additional Actuator button** to control an extra action during a call through the activation of an additional relay, completing the following fields:

Enabled	From the pull-down menu, select enable/disable the Additional Actuator button.
ViP address	Enter the ViP address
Expansion index	From the pull-down menu, select the "actuator module" or expansion you wish to to control (from 1 to 10)
Output index	From the pull-down menu, select the number of the relay (1 or 2) or the expansion number (from 1 to 10) that you wish to control

8) Message server configuration

The following procedure describes how to specify on the art. 1456 / 1456S the IP or ViP address of the art. 1952 device to be used as a message server (if present)

1. Select device 1456 / 1456S and select **Configuration/Message server [a].**
2. From the pull-down menu **[b]** select **ViP address or IP address** and enter the address of the CPS device that is to be used as a message server.
3. Press **Write page [c]** to save the current settings**.**

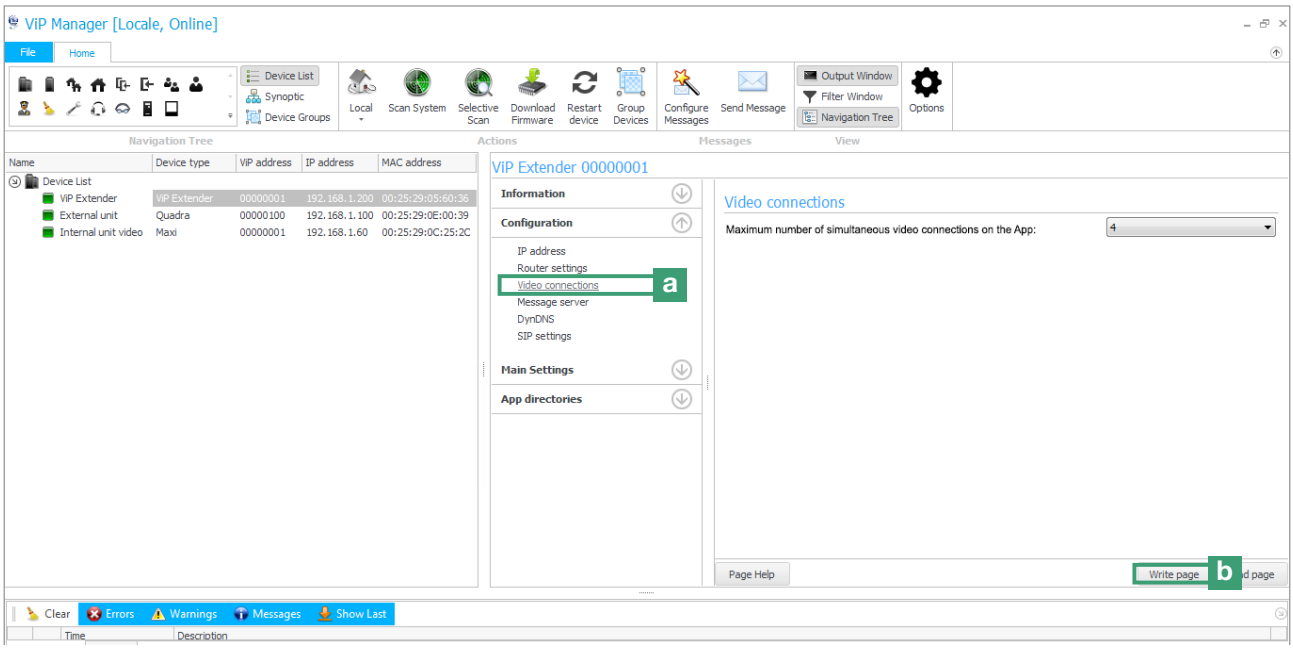


Special configurations

Video connection settings

From the next configuration page you can: change the limit for simultaneous video connections (max. 4).

1. Select the device *1456 / 1456S* and select **Configuration/Video connections [a]**.
2. Edit the values you wish to personalise.
   - **Maximum number of simultaneous video connections on the App:** 4 (or 3 App and one Master video, or 3 App and one Master 1456).
3. Press **Write page [b]** to save the current settings.



Connection to the configuration web pages

From the web pages you can perform all of the operations available on ViP Manager.
The backup and restore function is only available on the web pages.

1A) Remote connection

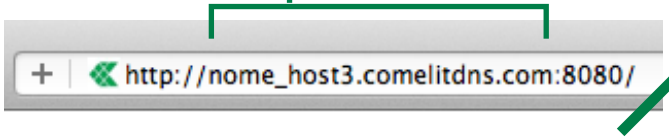
✓ it is necessary to perform Dyn DNS configuration (see **"3) DynDNS configuration for remote connection"**) and open port 8080 (see **"4) Port Forwarding setting for remote connection"**) on the router

✓ an active internet connection is also required.

1A. Enter the registered hostname or the public IP address, as in the following examples, and press enter.

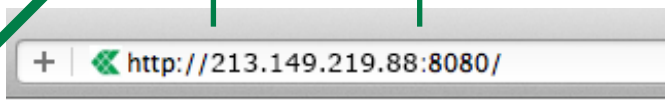
http:// ⊕ **registered hostname.comelitdns.com** ⊕ :8080

example = host_name3.comelitdns.com



http:// ⊕ **public ip** ⊕ :8080

example = 213.149.219.88



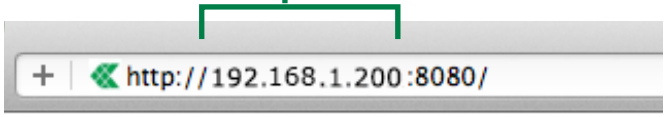
1B) Local connection

✓ With the PC connected via Ethernet cable to interface HOME of art. 1456 / 1456S and IP address belonging to the same network as interface HOME.

1B. Enter the IP address of interface HOME as in the following example, and press enter.

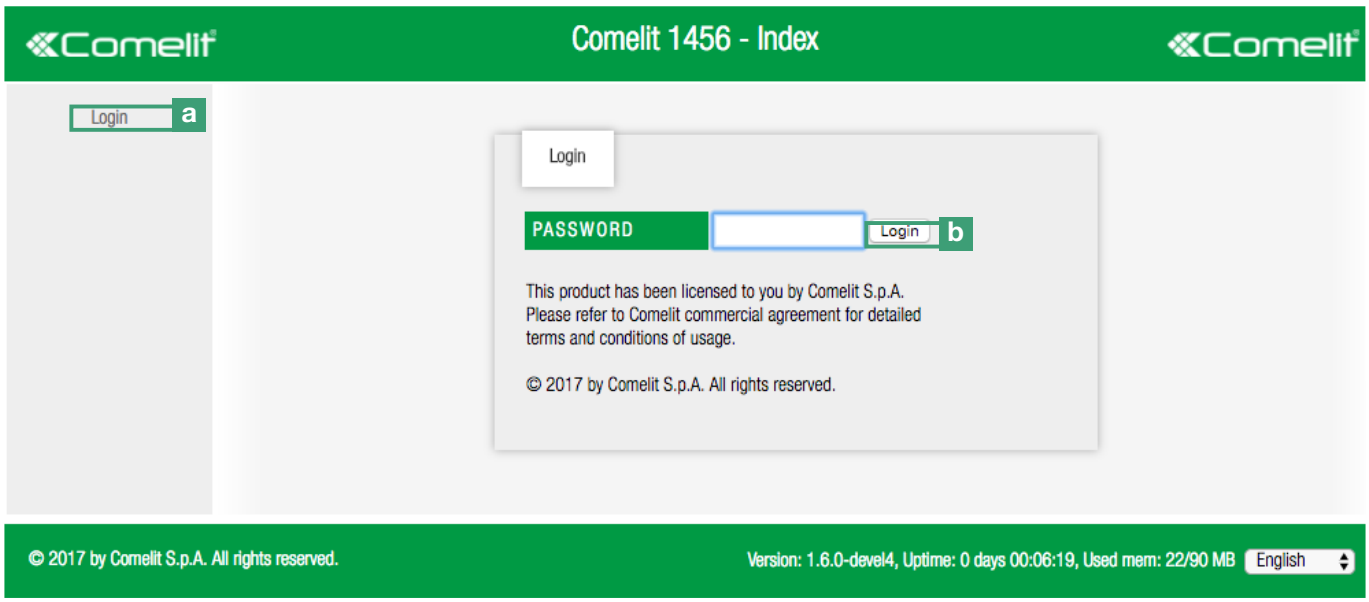
http:// ⊕ **interface HOME IP address** ⊕ :8080

default = 192.168.1.200



2) Login

1. Press **Login [a]**
2. Enter the installer password (default= comelit) and confirm by pressing **Login [b]**

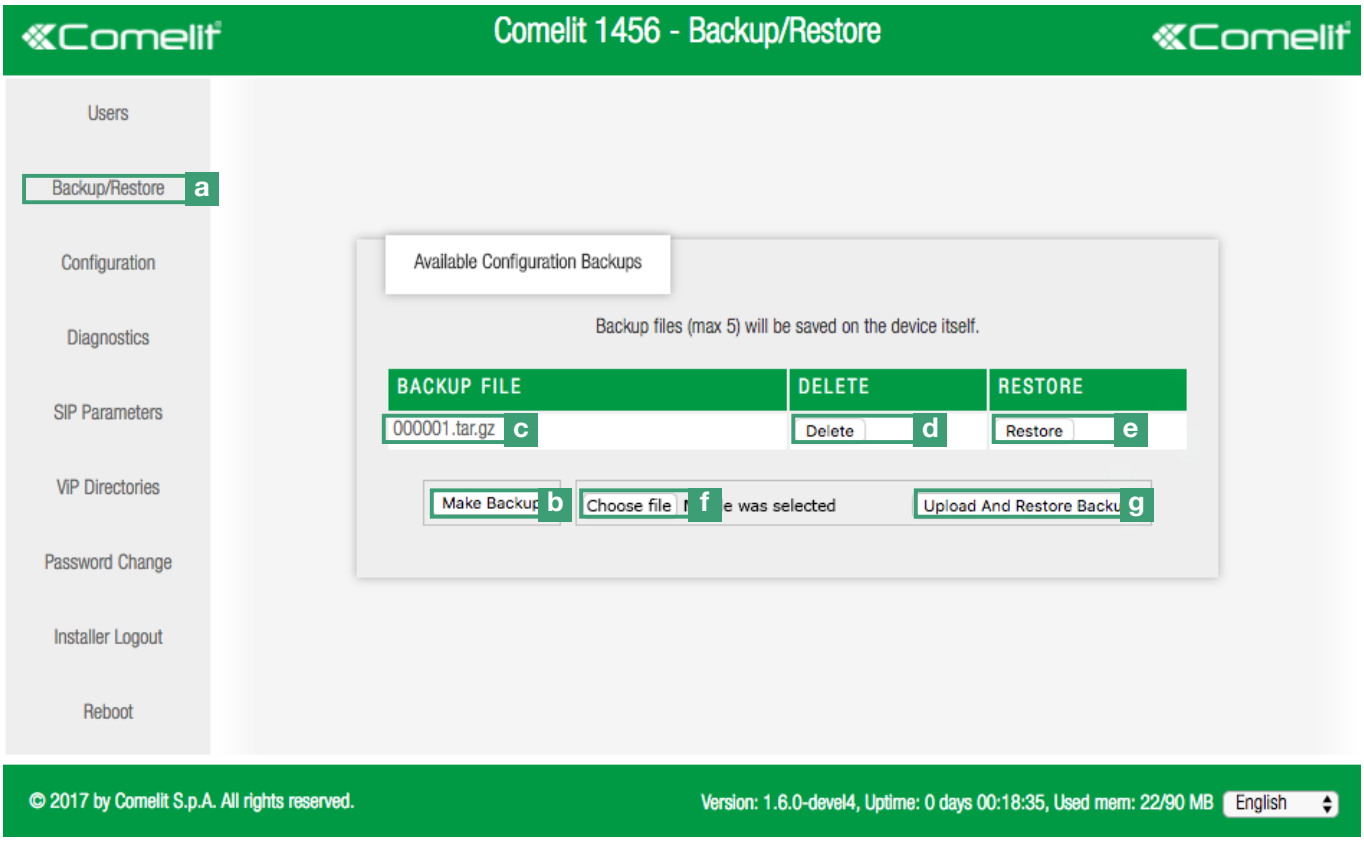


Backup and restore

The backup function allows you to save the current configuration, which can then be subsequently called up at any using the restore function.

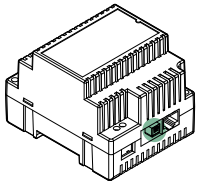
The backup and restore functions are only available from the configuration web pages (to access the web pages, see Connection to the configuration web pages)

1. Connect to the web pages of the device (in local or remote) and log in.
2. Access the Backup/Restore section by pressing **Backup/Restore [a]**
3. Press **Make Backup [b]** to create a backup of the current configuration.
   - » *A file with the extension **.tar.gz** will appear in the window*
   - ▶ Press the file name **[c]** to save the configuration file in the downloads folder on your computer
   - ▶ Press **delete [d]** to delete the configuration file
   - ▶ Press **restore [e]** to restore the configuration file
   - ▶ Press **Choose file [f]** to load a configuration file previously saved on your computer, confirming by pressing **Upload and restore backup [g]**



Reboot with predetermined network settings

The function **reboot with predetermined network settings** allows you restart the device with the default network parameter settings (interface A= 192.168.1.200), while keeping the other settings unchanged.



✓ **With the dip switches in the default positions (OFF).**

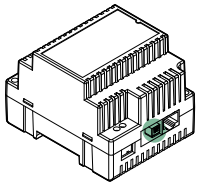
1. Switch off the power supply to the device.
2. Set DIP 1 to ON
3. Power on the device.
4. Wait 20 - 40 seconds until the LEDs start flashing slowly and alternately (1 sec red / 1 sec green).

5. Return all the dip switches to OFF.
   - » *The green LED will flash for 5 seconds.*
   - » ***The device will start with the default network settings.***

6. At the next restart, the device will recover the **saved** settings.

Restoring factory settings

This procedure allows you to restore all the factory parameter settings and to delete all the device configurations.



✓ **With the dip switches in the default positions (OFF).**

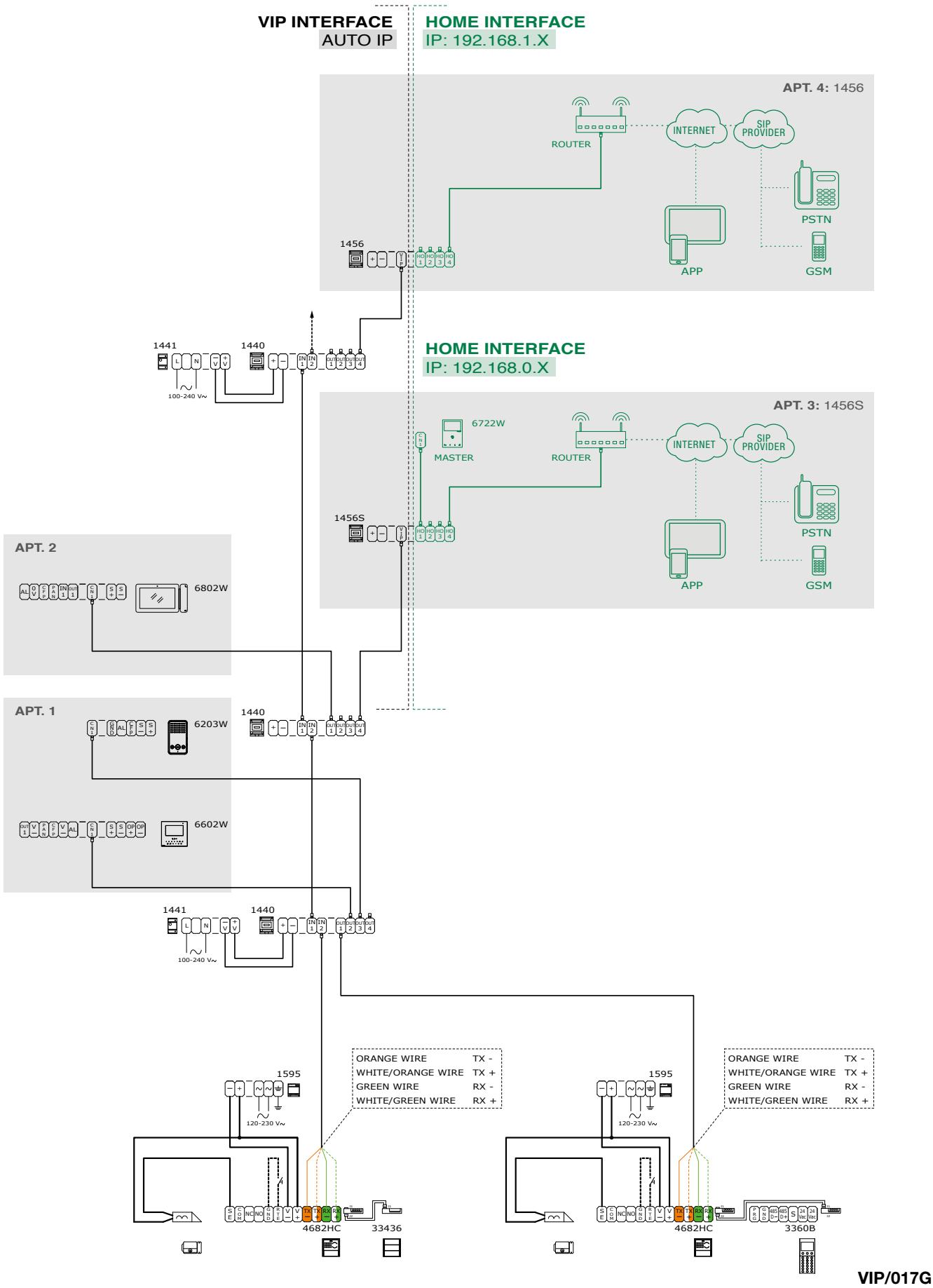
1. Switch off the power supply to the device.
2. Set all the dip switches to ON.
3. Power on the device.
4. Wait 20 - 40 seconds, until the LEDs start flashing rapidly and alternately (0.1 sec red / 0.1 sec green).

5. Return all the dip switches to OFF.
   - » *The red LED will flash for 5 seconds.*

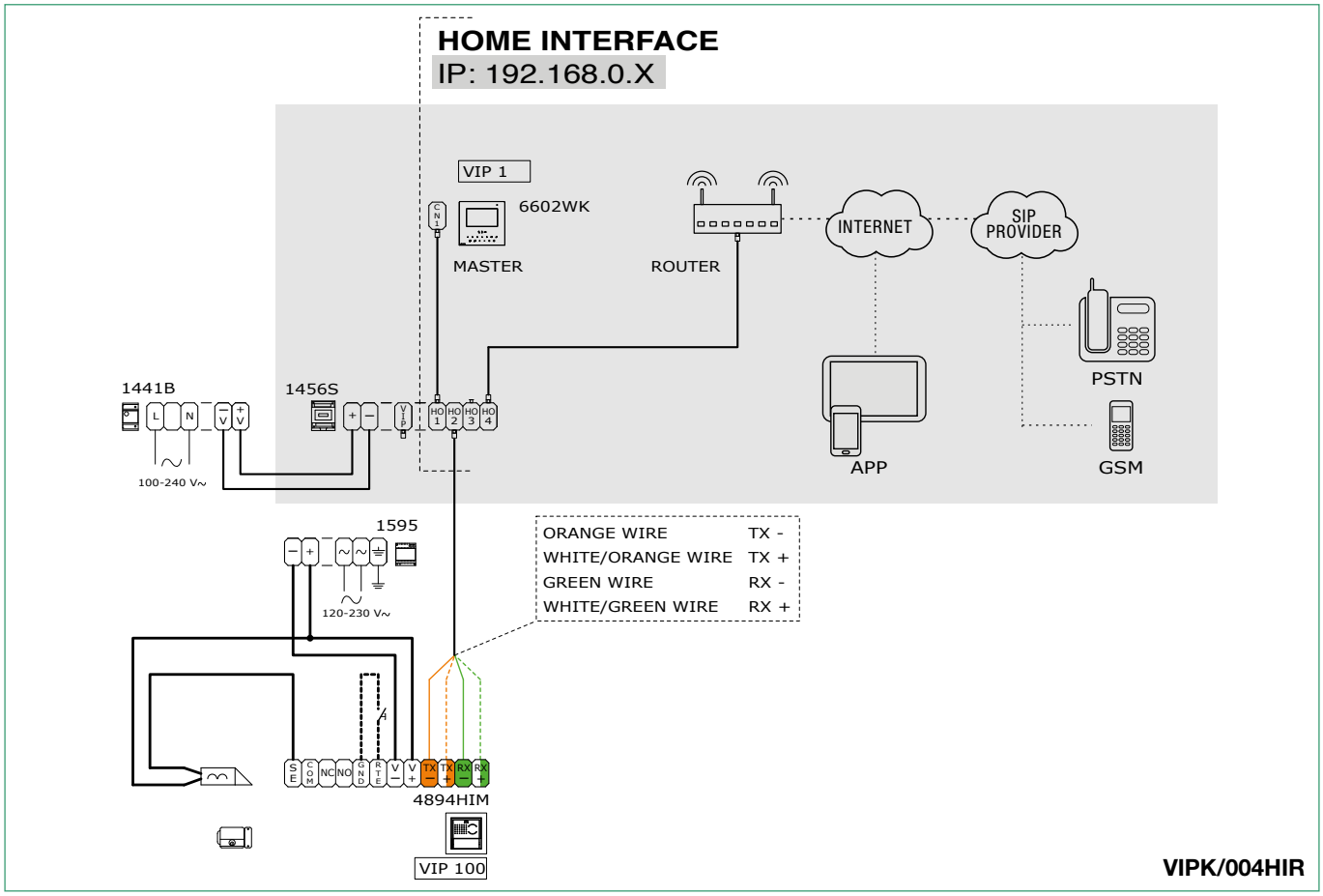
» ***The device will reset all parameters to the factory settings and restart in the normal way.***

Wiring diagrams

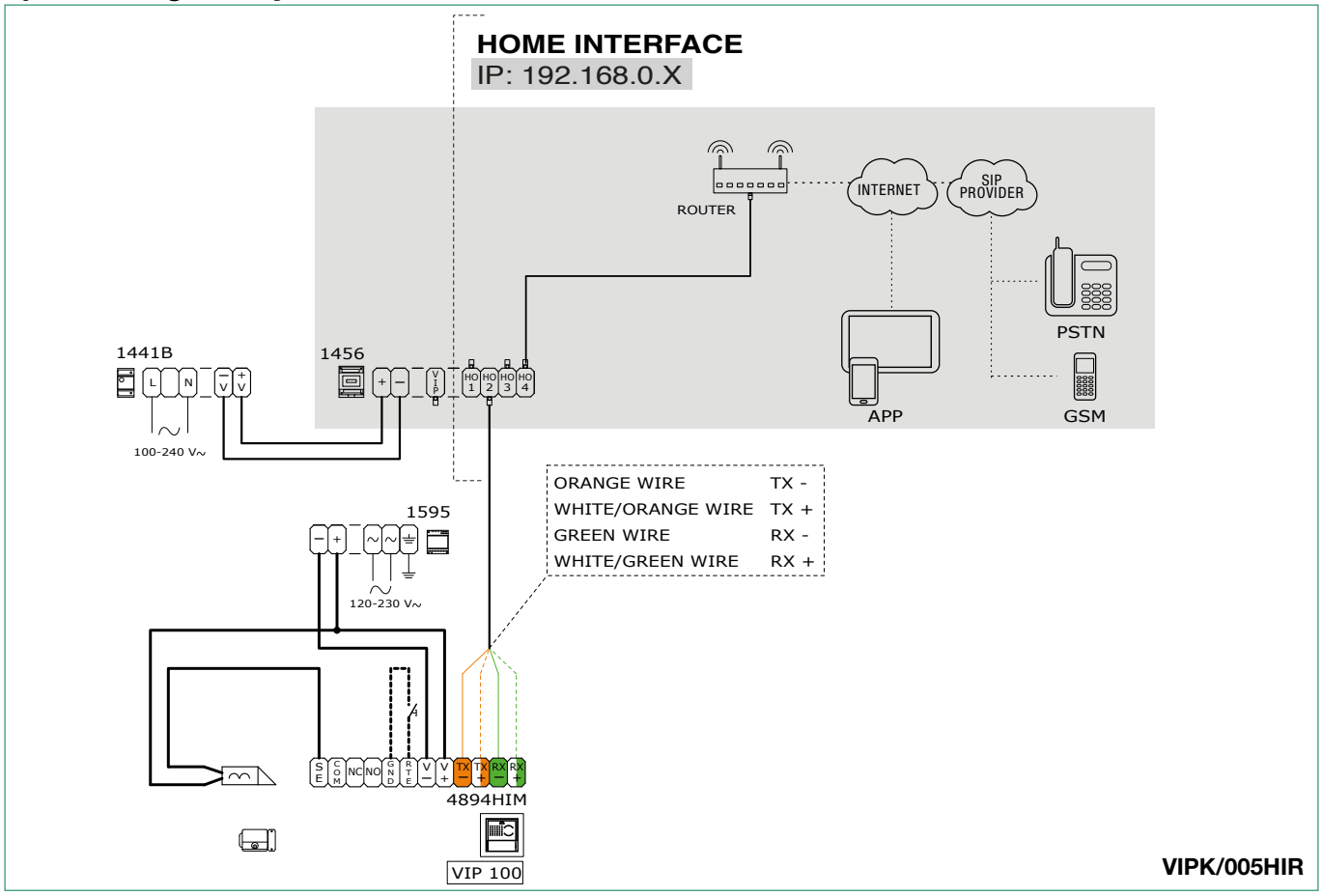
Wiring diagram for standard multi-residential system



System wiring for kit Art. 8512IM / Art. 8531 with router and slave apartment gateway Art. 1456S



System wiring for single-family kit Art. 8513IM /8513HIM with router and master apartment gateway Art. 1456



Glossary*

- **Autoip:** *Automatic Private IP Addressing* (known as APIPA or Auto IP), is a method for automatically assigning IP addresses to the devices connected to the network.
- **Dynamic DNS:** *Dynamic DNS* is a technology that allows a DNS name to be permanently associated with the IP address of the same host, even if that address subsequently changes.
- **DHCP:** In telecommunications and information technology, *Dynamic Host Configuration Protocol* (DHCP) is an application layer network protocol that enables the devices or terminals of a local network to automatically receive on each request to an IP network i.e. the internet) the necessary IP configuration to establish a connection and operate on a wider network based on Internet Protocol, i.e. to interact with all the other subnets, exchanging data, provided that they are also integrated in the same way with the IP protocol.
- **Gateway:** a *gateway* is a network device that operates at network level and above of the ISO/OSI model. It's main function is to transport network data packets outside a local network (LAN) Gateway is a generic term for a service that sends data packets outside of the network; the hardware device that fulfils this task is usually a router. Simpler networks have just one gateway that sends all outbound traffic to the Internet network. More complex networks have several subnets, each of which refers to a gateway which routes data traffic to other subnets or redirects it to other gateways.
- **Dynamic IP address:** dynamic addresses are used to identify non-permanent devices in a LAN. A server in the LAN automatically dynamically assigns the address, selecting it a random from a preset range. You can select the range of addresses in accordance with the number of users by setting the netmask, i.e. by telling the DHCP server how many address bits can be assigned dynamically to each single client that accesses it. For example, if the netmask has the value 255.255.255.0 (where each block of numbers separated by a point denotes a group of 8 bits), only the last 8 bits can be assigned to the hosts.
- **Static IP address:** static addresses are used to identify semi-permanent devices with a permanent IP address. Network servers, printers, etc. typically use this addressing method. Static addressing is generally used in preference to dynamic addressing for non permanent network devices if there is a limited number of hosts in the subnet and/or for security reasons, so that the actions of each host and the relative user can be kept under control.
- **Public IP address:** in telecommunications and information technology, a *public IP address* is an IP address in the address range of the internet network that is unequivocally allocated and is potentially accessible from any other public IP address, and therefore can be used for addressing and routing via IP protocol.
- **POE:** *Power over Ethernet or PoE* (the acronym) is a technique for powering equipment via the same cable as that used for Ethernet connection. It is very useful when there is no convenient electrical power source near the termination or when you wish to reduce the number of elements and wires; for example, an IP phone on a desk can be powered directly via the Ethernet cable in Power over Ethernet, thereby eliminating the need for a power supplier and its cable, making for a simpler, less cluttered installation. For the moment, these techniques are used mainly to power devices that consume only a little power, such as VoIP telephones, access points and webcams.
- **Port forwarding:** in computer networks, port forwarding is the operation that allows the transfer of data from one device to another via a specific communication port. This technique can be used to allow an external user to reach a host with a private IP address (within a LAN) via a port of the corresponding public IP address. This operation requires a router capable of automatic translation of network addresses, or NAT.

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