



TEMA TELECOMUNICAZIONI

"IP COMMUNICATION AND SECURITY COMPANY"

WWW.TEMATLC.IT

AD630S-AD630SA

***VoIP SIP 30W PoE Horn Speaker
IP66 grade of protection – 120dB – 2 Way***



QUICK GUIDE

HW Version 1.0 - SW Version 1.1



Serie Audio Over IP Network ***"SipComStage"***

Products for VoIP SIP LAN networking Communications, Paging Amplifiers Systems and Audio Applications. Zone Announcements, Night Ringer, Multicast general call, Background music, Standard SIP call or Emergency call, SD memory with pre-recorded messages, Relays for LAN drives.

Revision	Date	Revision reason	Prepared	Checked/Approved
0	19/04/2022	First edition	MM, DP	DP, FL



DICHIARAZIONE DI CONFORMITÀ CE

DECLARATION OF CONFORMITY CE

We, **TEMA TELECOMUNICAZIONI SRL Via C. Girardengo, 1/4 - 20161 MILANO**

declare under our sole responsibility that the product:

Product name **Horn VoIP SIP 30W PoE IP66**

Trade name **TEMA TELECOMUNICAZIONI Srl**

Type or model **AD630S, AD630SA**

and accessories --

to which this declaration relates is in conformity with the essential requirements and other relevant requirements of the R&TTE Directive (1999/5/EC, 2006/95/EC, 2004/108/EC).

The product is in conformity with the followings standards and/or other normative documents:

HEALT & SAFETY EN 60950-1:2006 +A11:2009 +A1:2010 +A12:2011

EMC EN 55022:2010, EN 55024:2010, EN 61000-3-2:2006
EN 61000-3-3 :2008

MILANO, 20 February 2022

TEMA TELECOMUNICAZIONI SRL
D. Pontillo

I. IMPORTANT INFORMATIONS REGARDING THE RECOVERY AND RECYCLING OF THIS ELECTRONIC DEVICE

The crossed-out wheeled bin symbol below indicates that this electronic equipment is intended to be disposed in a separate collection and not in an unsorted municipal waste, in order to provide for the treatment of WEEE (Waste Electrical and Electronic Equipment) using best available recovery and recycling techniques. Specific treatment for WEEE is indispensable in order to avoid the dispersion of pollutants and other hazardous substances into the waste stream, while recycling leads to reduction of disposal of waste and the negative impacts on environment and human health. That is, priority is given to reuse of WEEE in its components, subassemblies and consumables. As the final holder, the user has an important role in contributing to reuse, recycling and other forms of recovery of WEEE and is responsible to return this waste in the collection facilities set up by EC Member States and to fulfill other duties in compliance with Directive 2002/96/EC and local laws.



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Thank you for choosing a TEMA technology product, our aim is the full satisfaction of the customer and for this reason you will find in this quick guide all the useful information to simplify the basic learning and the first use of the product. The system you bought has been built and tested with the utmost precision, but if something goes wrong you will find our references for all the necessary assistance.

Remember to download **the complete technical manual** and other useful documentation at the links below.

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If you have purchased the product from one of our resellers, please contact the technical assistance of the same in the first instance and then you can contact our technical assistance service by e-mail reporting **the model and serial number of the product and CC your dealer.**

RECOMMENDATIONS

1. It is recommended to read this entire manual before proceeding to the installation of the device.
2. The installation and commissioning of the device can only be performed by specialized technicians.
3. The device is accurately manufactured and tested. In any case, the product is not recommended for use where an error of operations can cause property damage and/or injury to persons.
4. It is expressly not recommended maintenance inside the device which must be carried out by Tema Telecomunicazioni, the removal of the closures will invalidate the warranty and makes accessible internal parts with risk of electric shock.
5. Tema Telecomunicazioni accepts no responsibility for damage to property and/or persons resulting from incorrect use of the equipment or by procedures that do not comply with the instructions in this manual. Tema Telecomunicazioni reserves the right to make modification to the technical and functional specifications at any time and without any notice.
6. Products powered via PoE (Power over Ethernet) may only be connected with cables coming from the internal network company (inside the building), are not allowed connections LAN cables coming from outside the building.
7. Use for this device only and exclusively original spare parts and consumables supplied by Tema Telecomunicazioni. The company is not responsible for damage caused by the use of materials not supplied by the same.
8. Do not expose the unit to direct sunlight, protect from heat, dust, humidity and chemicals.
9. Tema Telecomunicazioni reserves the right to vary the product characteristics for improvement without prior notice. Check the WWW.TEMATLC.IT website for any updates to the latest firmware, manuals, and technical documentation.
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This symbol in the descriptions indicates a general warning or a damage danger to equipment or people.



This symbol in the descriptions indicates useful information or a suggestion for the optimization of the device functionality.

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1. PRESENTATION

AD630S / AD630SA allow to realize Paging Amplification Audio Sound Systems in a standard LAN network completely integrating with IP-PBX SIP in order to be able to play announcements from any telephone in the internal network and any technologies: analog, SIP, Smartphones and Softphones.

Access can be authorized by Password with code to be typed before starting the announcement. **Two internal relays** can be programmed to be automatically activated when it is called or to be controlled from the phone via LAN that originated the call to the AD630S horn, eg. to report the event to any auxiliary devices connected downstream.

The system programming is done remotely via LAN thanks to the integrated Web server. AD630 incorporates an efficient 40W (2x20W) Class-D amplifier.

2nd SIP Account – Night Ringer. AD630S can be registered on the PBX with a second telephone number, different from the one used for ads and inserted in the night ring group. To the arrival of an incoming call, the system plays a sound (user selectable) to all the network speakers. The volume can be adjusted independently of the others managed audio channels.

Inputs from external contact with a variety of functions, for example: provide to make a SIP call to a preprogrammed number and inform the operator of the event with an appropriate voice message. The signaling can be repeated a number of programmable times, the operator can interrupt the sequence with a keyboard code. Other examples of use will follow in this manual.

Multicast Audio Streaming for music and announcements diffusion. AD630S handles up to 16 multicast channels in LAN with priority levels to allow the background music broadcasting on loudspeakers network. The generation of musical programs in streaming audio can be managed from a PC of the LAN/WAN network with special software or special TEMA Encoder.

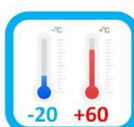
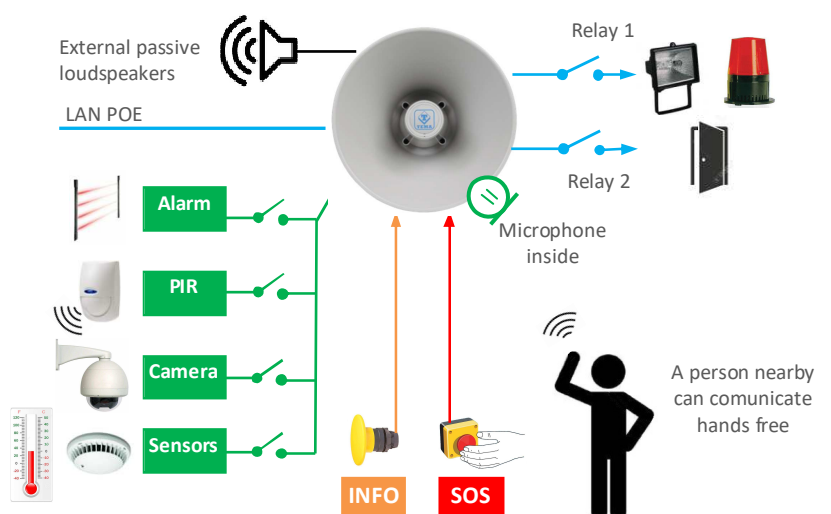
Service "SIP Security Info Call" - Emergency SIP Call. By connecting a button or an external contact, AD630S can call a phone number programmed to alert the event with a specific warning message. It is a security service for emergencies or simple request for help and information, and allows a one-way phone call.

Total remote management via LAN, integrated Web Server. Programming, configuration, loading and listening to audio files, firmware release update, audio volume adjustment, backup and restore the configuration, device reboot.

Possibility to connect one or more external passive loudspeakers on the **2nd amplifier** to expand audio coverage of the served area. High power output of 20W when powered with an external power supply, automatic lowering of the power with 10W limitation when powered only from LAN cable via PoE.

Input/Output

- 1 Multifunction Alarm input
- 2 Input push button for SIP calls or other 2 programmable inputs for Alarms
- 2 Remote controller Relays
- 1 Microphone inside
- 1 Power input 12-24Vdc
- 1 Power output for service 12-24Vdc
- 1 Output of the 2° inside power amplifier 20W to connect external passive loudspeakers



VoIP SIP Amplifiers-Speakers and accessories of the AD600 series



AD630S IP-SIP PoE 30W alluminium Horn Speaker with 40W internal amplifier (2x20W) IP65 protection. Same design **AD330/30T** passive horn 30W-80hm with transformer.



AD630SA IP-SIP PoE 30W ABS oval Horn Speaker with 40W internal amplifier (2x20W) IP65 protection. Same design **AD330A/30T** passive horn 30W-80hm with transformer.



AD635 IP-SIP 12W PoE Speaker, wall mounting. Same design **AD335/06TP** passive speaker 6W-80hm with transformer.



AD633 IP-SIP speaker 12W PoE ceiling mount version. Same design **AD333/12TP** passive 12W-80hm speaker with transformer.



AD634 IP-SIP 2x20W PoE IP65 Speaker in vandal-proof aluminum. Same design **AD334/20TP** passive 20W-80hm speaker with transformer.



AD638 IP-SIP 2x20W PoE IP65 speaker two-way low-medium and high. Same design **AD338** passive speaker 30W-80hm.



AD639 IP-SIP 2x20W PoE IP56 Speaker. Same design **AD339** passive speaker 15W-80hm.



AD639SR IP SIP 30W Call Repeater, integrated Power Supply PoE 802.af, IP56 protection grade.



AD610 2X2W PoE IP-SIP Amplifier Module, External Amplifier Adapter with Sound Isolation Transformer. Directly pilot external power amplifiers or 8 Ohm external passive speakers.



AD611 IP-SIP PoE 10W Amplifier Module (2X5W). Directly pilot 8 Ohm external passive speakers.



AD612 IP-SIP PoE 40W (2x20W) Amplifier Module when powered with an external power supply. Directly pilot 8 Ohm external passive speakers.



AD699/XPB Die cast Metal Box, IP65 protection grade, antivandal with red N.A button.



AD615/S Audio Encoder Module from analog to digital on LAN Network in Multicast/Broadcast Channels.



AD615/SIP Audio Encoder from analog to digital on LAN Network in Multicast / Broadcast Channels, with SIP protocols for calls routing to selectable Multicast channels.



AD696/BM External microphone base with "Talk" button and 7 selectable Chime for AD615/S RJ45 plug. Version **AD696/B** without chime.



ADAM

Audio Domain & Access Management Management software and microphone console from 3 to 256 zones



AD696/AA External Microphone Base with "Talk" button specific for PC with ADAM software



AD696/CT4 Mic Console 3-12 zones

AD696/CT8 Mic Console 7-28 zones

AD696/CT40 Espansion Module 40 zones



AA-39DL

Plug Power Supply 220Vac/12Vdc-1,0A.



AA-39D1A

DIN Power Supply 220Vac/15Vdc-1,0A.



AA-39P4

PoE injector 230Vac/48Vdc 0,5A.



AA-39E3

DIN Power Supply 220Vac/24Vdc-1,5A



AA-39E6V

DIN Power Supply 220Vac/24Vdc-2,5A.



AA-699/xxx

Flash lights with Xeon lamp or high brightness LEDs. Ideal to be controlled by the relay of the IP-SIP speakers of the AD630 series or by the IP-SIP amplifier AD610, AD611, AD612 modules, with a call in progress add a light signal to the acoustic signal.

2. FEATURES

- **AD630S** IP PoE Horn with aluminum alloy cone, **AD630SA** IP PoE ABS Horn, IP65 grade of protection
- Dimensions 245 x 245 x 300 mm (AD630S), 215 x 283 x 290 mm (AD630SA)
- Wall mounting, ceiling mounting, indoor/outdoor sheds, offices, warehouses, etc..
- PoE (Power over Ethernet) 802.af connected via UTP cable or external power supply 12-24Vdc, even simultaneously with both power supplies
- Audio output power **40W (2x20W)** with 24V external power supply, 10W (2x5W) with PoE power
- **2° SIP account** adjustable on the IP-PBX for Night Ringer mode with the possibility of routing the audio content of the ringtone file to a programmable multicast channel.
- **16 RX Multicast Channels** for Music/Ads/Messages diffusion with 7 priority levels
- **9 Multicast Channels in trasmission/Routing**
- **2 remote controlled relays** via LAN
- **1 multifunction input** from external dry contact
- **2 buttons inputs** for direct call to SIP numbers differentiated by communication/alert
- **1-2 pre-recorded announcement**, associated with the available input, or up to **9 announcements** by making a call and sending the respective code via telephone
- Internal memory for customizable audio files (max 60s each)
- Possibility of diffusing pre-recorded announcements at pre-established times (up to 5 for each day of the week), from table or up to 32 per day with annual calendar programming
- Possibility of diffusing a pre-recorded daily announcement, at a set time or manually controlled, with programmable interval and repetitions
- **Notification service** with dedicated messages following external event
- "SIP Security Info Call" warning/emergency telephone call, sending of pre-recorded messages on loudspeakers and on the called
- "Push to Talk" function to control the direction of communication from an external button
- Independent adjustment of audio volumes: communications, multicast, night ringtone, alert tones
- VoIP connection with standard SIP Proxy Server protocol
- P2P (Peer to Peer) for operation also without IP-PBX
- Free APP developed for smartphones/tablets with iOS and Android operating systems
- AA-Videoconsole software for Windows XP/7/10 PC for management of TEMA IP terminals included
- ADAM Software (Audio Domain & Access Management) for Windows 7/10 PC for total management of the system
- Programming via dedicated Web Interface with password protection
- Possibility of software / firmware update via LAN
- Possibility of receiving and sending MULTICAST RTP audio streaming, for paging audio announcements, up to 7 priority levels (in reception) and with different volumes for each channel
- Routing of the audio received in a SIP call to a programmable multicast destination
- Stream of the alarm message to a programmable multicast destination
- Audio streaming with high quality codecs
- Autotest automatic Audio for functionality check, alert via email / SIP call in case of anomaly

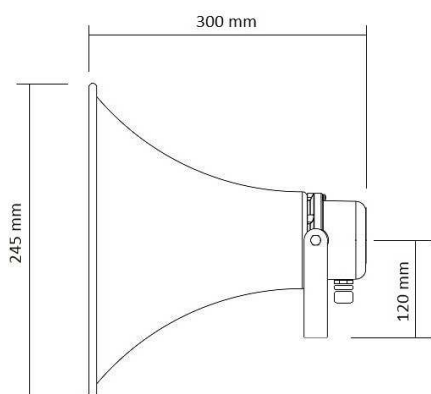
3. PACKING LIST

The systems are supplied with the parts included in the following list:

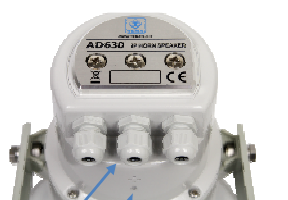
- An IP horn speaker device cod. AD630S / AD630SA
- A 3mt LAN cable connected internally to the horn for pre-installation test functions
- A printed system documentation, installation, programming, use manual
- A CD-ROM with complete documentation

4. TECHNICAL SPECIFICATIONS

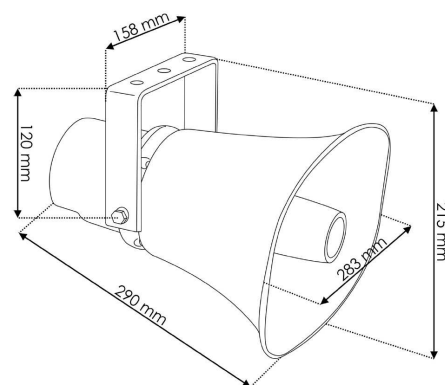
LAN	TCP/IP Network 10/100BaseTx
Protocols	SIP 2.0, RFC 3261
RTP Multicast audio Streaming	G711 μ , G711a, G722, L16 from 16 to 32 kHz
Connection	SIP Server (IP-PBX) or P2P (Peer To Peer)
Power Supply	PoE, Injector PoE and/or external Ac/Dc power supply
PoE	802.3af class 0 12,95W
External Power Supply (Opt.)	230Vac / 12-15Vdc -1A, 24Vdc - 2A
Technology	MIPS 560MHz Microprocessor
Memory	128MB Ram, Flash 32MB
Programming	practical Web interface and password
APP for Smartphones	iOS, Android
Messages/Sounds	prerecorded in the internal SD memory card
Audio File Format	Windows .wav – 8K – 16 bit
Duration	60 sec
Bandwidth	300Hz – 7KHz
Power	Class-D 2x5W (PoE) amplifier, 2x20W (Ext. Power Supply)
Sound pressure	120dB A (SPL) max power
Dispersion angle	100° @ 2KHz
Audio communication	Unidirectional / Bidirectional / Push to Talk
Internal Microphone	Omni-directional electret 30Hz-18KHz
Additional speaker output	1 output for external speaker, passive, impedance 8 Ohm
Automatic check mode	Through self audio feedback
Inputs from buttons or external contacts	3 for buttons or warning/alarm
Integrated relays	2
Relay contacts capacity	Max 30Vdc – 1,5A
Signalings	Active call Led, call tone, Ding-dong ads
Installation	Ceiling mount, wall mount
Housing Material	Aluminium and ABS
Grade of protection	IP66, weather resistant
Storage temperature	From -20° to +65°C
Operating temperature	From -20° to +60°C
Relative humidity	Up to 100%
Dimensions	245 x 245 x 300mm (AD630S) / 215x283x290 (AD630SA)
Weight	2,1 Kg (AD630S) / 2,2 Kg (AD630SA)
Warranty	2 years, possibility of extension 3 to 5 years (Option)
Compatibility	CE, ROHS



AD630S
Aluminium round,
grey



Microphone
Call in
progress Led
Cable gland for
external connections



AD630SA
ABS oval, white

5. OPERATION

In stand-by and correctly configured, the system waits for incoming calls.

The device allows also the “streaming” Multicast sound diffusion. In this case the RTP audio diffused in LAN will be played amplified by the AD630S horn. Differing from the announce mode on direct call, with multicast mode, more devices can diffuse the same message at the same time, useful for general pre-recorded ads or for music sound diffusion.

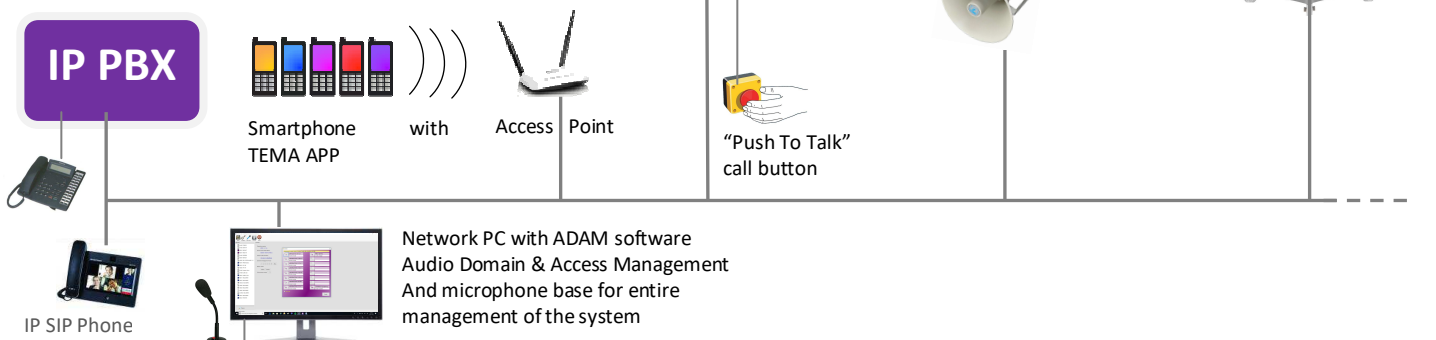
The operator who want to make an announcement on the device will make a call, from any extension of the PBX, to the number to which the device is registered or to its IP address in the case of Peer-to-Peer connection.

It is always monitored the change status of an alarm input to which it is possible to associate a number to call and a message to be played to the called party answer. It is possible to make common adjustment of the level output of the speakers to better suit the acoustic characteristics of the served area.

5.1. Device connection diagrams

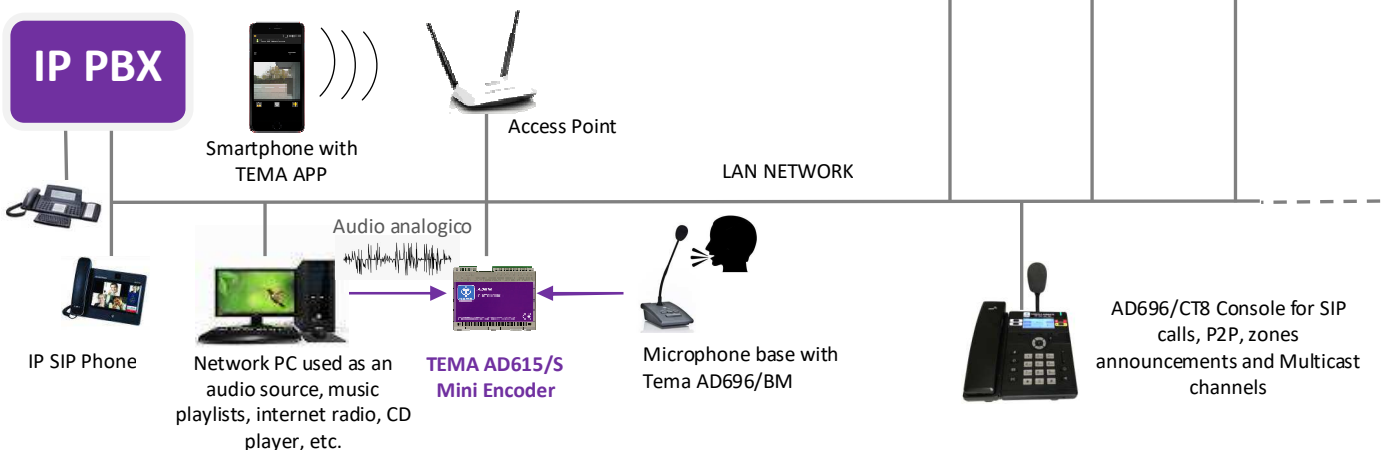
Application with IP-PBX or Peer to Peer

Each IP Horn can be reached from SIP phones, Smart-phone and other registered terminals in the IP-PBX that can launch ads. The 2 integrated relays can be operated from the SIP phone that originated the call. With a PC with installed the TEMA ADAM software it is possible to manage the entire IP Audio systems. In each AD600 series speaker, it is possible to independently adjust the audio volume reproduced via LAN thanks to the integrated web server or via ADAM software. AD630 can also make calls or launch emergencies by connecting an external button.



Multicast Audio Streaming for sound diffusion

Each AD630S is accessible from IP-PBX registered SIP phones and smartphones that can launch an advertisement. With the help of an encoder TEMA AD615/S it is possible to stream music on multicast channels managed by AD630S, the music is taken in analogue audio from the PC (or any audio player) and sent to the Encoder that will redistribute on the LAN. The announcement from a SIP call to a specific AD630S device will stop the music that will be automatically restored at the end.



6. OPERATING MODES

6.1. Calls to devices

Call from the PBX phones to the AD630S system allows to make announcements to the network speaker. However, it is a normal telephone call, typically unidirectional although AD630S makes possible to hear the sound present in its vicinity, being equipped with an internal microphone. Calling the extension number connected to the systems, they will answer after a set time. It is also possible to have an appropriate code to protect the function from unauthorized access. Hang up to end the announcement. Any background music will be automatically restored.

6.2. RELAY function

The relays are typically used to signal to any auxiliary external devices that the announce is played, automatic activation call per call. If not used for the function described above it is available and can be controlled with an appropriate code from the caller's telephone.

The internal relays can be used to connect any external flashers. In programming you can decide whether they should be activated during the incoming call and it is also possible to decide in which mode (flashing, fixed, etc.) If they are not programmed to be activated during the call, they can only be controlled using the Tema ADAM software.

During the announcement will be possible to send the commands described here (which will be these by default):

DTMF Command	Function	Description
#1 - #2	Activate the relay contact 1 or 2	Used to manually activate the relays (if not programmed to be automatically activated per announcement).
*9x	Announcement	Follow the code *9 with the number of the announcement you want to play (1 to 9). Example: make a call, wait for the horn to answer, dial *91, the horn hangs up the call and emits the pre-recorded announcement file no. 1

6.3. Calls generated for acquisition of external contacts for special signalings

Calls that the system generates on his line to alert after triggering the alarm by the equipment input contact connected (aux devices or a button available to users in the proximity of the device)

6.4. Compatibility

The product has been tested and installed with different brands of PBXs and VoIP systems.

Compatibility with the most common brand of IP-PBX:

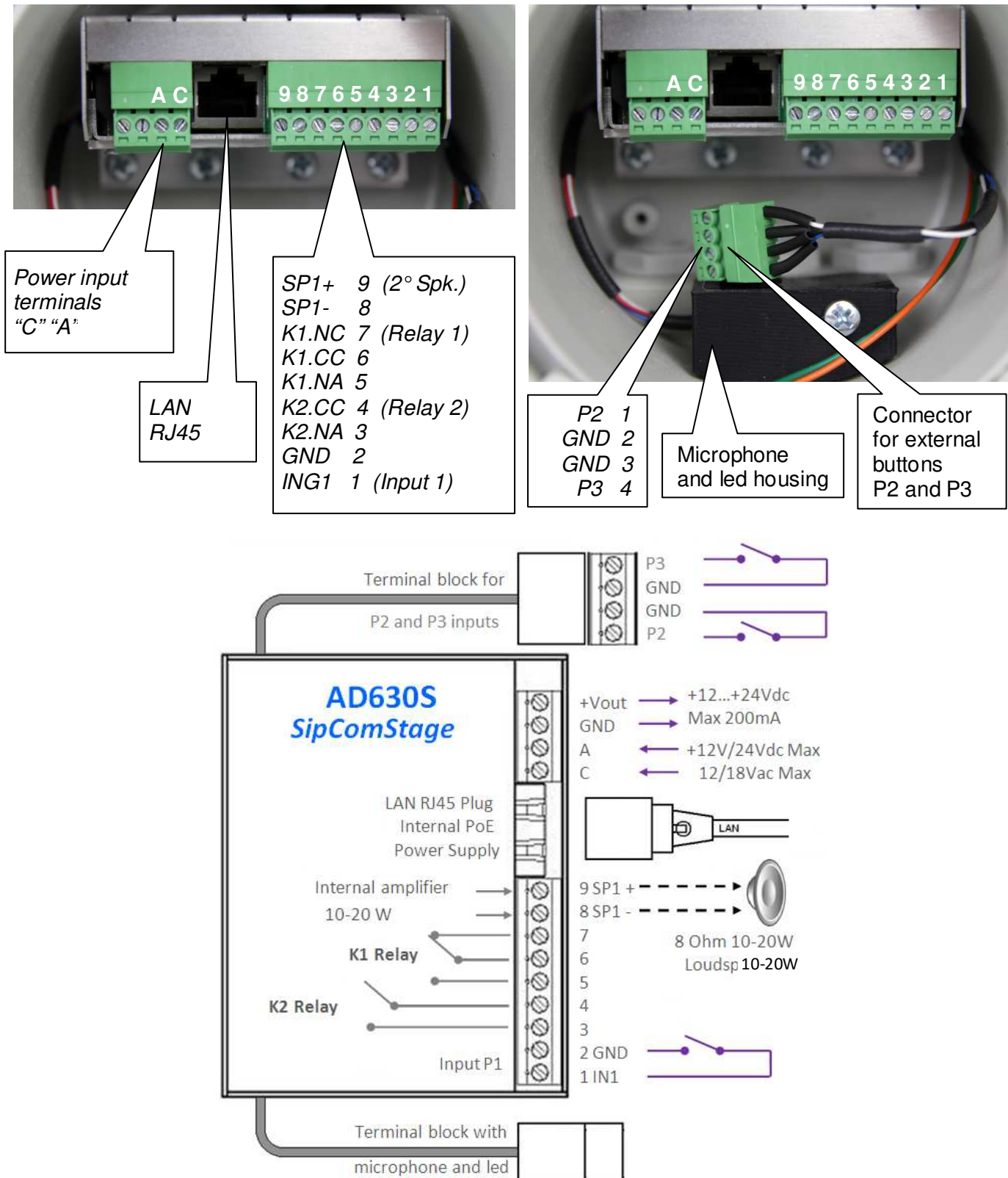
SIEMENS/UNIFY - AVAYA - ALCATEL – PANASONIC – SAMSUNG – NEC - LG ERICSSON - WILDIX - AASTRA - ASCOM - NITSUKO - SELTA – PHILIPS - MITEL – YEASTAR – ZYCOO – CISCO – EPYGI ELASTICS – GRANDSTREAM SHORETEL – NORTEL – SWYX – XORCOM – INNOVAPHONE – NETHESIS - 3CX - KALLIOPE – BRIA – ASTERISK BASED SYSTEMS AND SOFTPHONE APP – DOMOTIC SYSTEMS LOXONE

MADE IN ITALY: all the products are designed and manufactured in Italy by TEMA which guarantees their support and technical assistance over time with a 24 months warranty.

7. INSTALLATION OF THE DEVICE

7.1. Connecting the internal module of AD630S

Inside of AD630S there is an electronic module for the management of communication functions on the VoIP network, and for amplification of the audio signal. The connection of the signal cables from the field must be carried out by qualified technical personnel, operate verifying that no cable is under voltage, also strictly comply with the instructions of the voltage and current values for the power supplies and other parts of the system. Follow the instructions below in the drawing block for the correct electrical connection of the system. On the following page there is the detail of each terminal shown.



4-pin removable terminal block (screw connector inserted to the electronic module)

+Vout	Terminal block from which it is possible to withdraw unregulated power supply, POSITIVE
GND	Terminal block from which it is possible to withdraw unregulated power supply, NEGATIVE
A	Terminal block to power the system, irrelevant polarity
C	Terminal block to power the system, irrelevant polarity



At the "+Vout" output there is a + 12Vdc voltage when the device is powered via PoE, otherwise, at this output the voltage will be the same as at the terminals A-C. The use of "+Vout" is permitted as long as it is not exceeded a maximum 200mA current consumption and the load has a protection on the input current. Improper use of this output will permanently damage the unit..

RJ45 LAN port (present on the electronic module)

AD630S requires a LAN cable to connect to the network. If the port cable has also PoE, it will not be necessary to supply the module with other power sources (up to max 10W powers). For higher powers will be necessary to supply the module with other power source of 24 Vdc 2A or max 18Vac 2.5A.



Devices powered via PoE (Power over Ethernet) may only be connected with cables coming from inside the building, they are not allowed connections to LAN cables coming from outside the building.

9-pin removable terminal block (screw connector inserted to the electronic module)

9 SP1+	Class-D amplifier 1st output terminal block for connection of a speaker, positive pole
8 SP1-	Class-D amplifier 1st output terminal block for connection of a speaker, negative pole
7 K1.NC	Terminal block of the K1 relay - NC contact, normally closed
6 K1.CC	Terminal block of the K1 relay - CC contact, central contact (contact load max 30V 1.5A)
5 K1.NA	Terminal block of the K1 relay - NO contact, normally open
4 K2.CC	Terminal block of the K2 relay - CC contact, central contact (contact load max 30V 1.5A)
3 K2.NA	Terminal block of the K2 relay - NO contact, normally open
2 GND	Terminal block referred to the negative of the system power supply, for the input contact 1
1 ING1	Terminal block for the detection of the input contact 1



To terminals 1 (INP1) and 2 (GND) must only be connected a relay contact or a button free from any voltage to prevent permanent damage to the device.

4-pin removable terminal block (connector inserted to the electronic module)

P2	Connect here the dry contact of the button named P2
GND	Reference terminal of the P2 contact
GND	Reference terminal of the P3 contact
P3	Connect here the dry contact of the button named P3



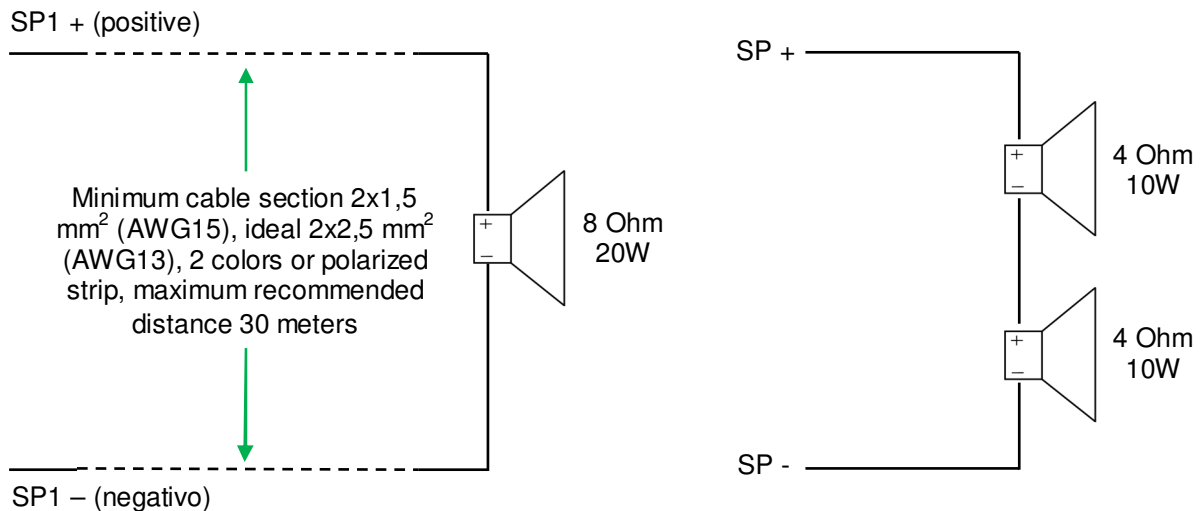
To terminals 1 (P2) and 2 (GND) / 4 (P3) and 3 (GND) must only be connected a relay contact or a button free from any voltage to prevent permanent damage to the device.

7.2. Correct connection of an additional passive speaker

The power amplified SP1 is an output where it is possible to connect an external additional speaker passive paying attention to its polarity but especially to the load impedance which cannot be lower than 8 Ohm.

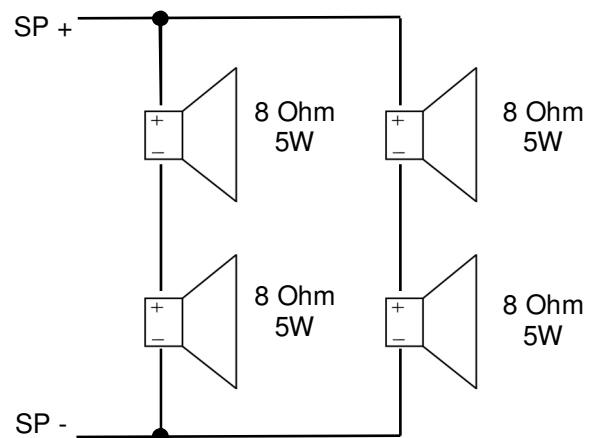
Furthermore, it must be respected the maximum output power from the amplifiers using adequate power speakers. In the simplest case just connect an 8 ohm speaker of at least 20W power or higher. Use cables with different colors, section of at least 1.5 mm² and limit the distance from the amplifier to no more than 30m.

Below are some examples of mixed combinations, to serve a wider area but with distributed power.



Corrispondenza cavi AWG / mm²

AWG20 > 0,518 mm ²	resistance 33,31 Ohm/Km
AWG19 > 0,653 mm ²	resistance 26,42 Ohm/Km
AWG18 > 0,823 mm ²	resistance 20,95 Ohm/Km
AWG17 > 1,04 mm ²	resistance 16,61 Ohm/Km
AWG16 > 1,31 mm ²	resistance 13,17 Ohm/Km
AWG15 > 1,65 mm ²	resistance 10,45 Ohm/Km
AWG14 > 2,08 mm ²	resistance 8,286 Ohm/Km
AWG13 > 2,62 mm ²	resistance 6,571 Ohm/Km
AWG12 > 3,31 mm ²	resistance 5,211 Ohm/Km
AWG11 > 4,17 mm ²	resistance 4,132 Ohm/Km
AWG10 > 5,26 mm ²	resistance 3,277 Ohm/Km



AD630S with additional speakers of the same design

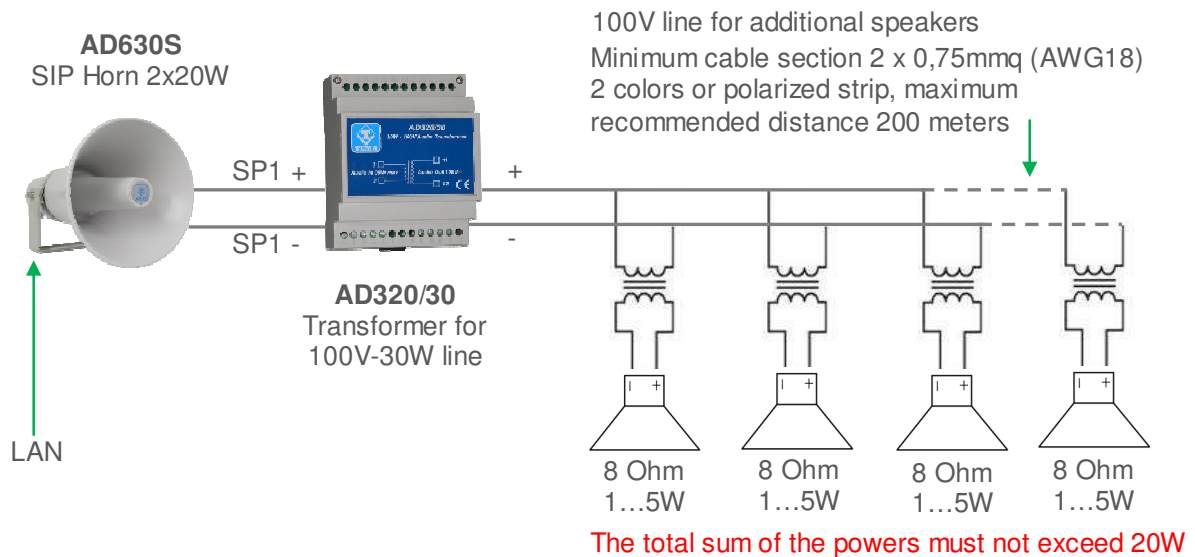
Thanks to the 2nd internal audio amplifier it is possible to connect to the active IP unit another 1 or 2 low-cost passive speakers of the same design to increase power, directionality, extend the area served, even in different rooms separated by walls, in order to reduce the cost of the plant.



ATTENTION: when connecting an additional passive speaker it is necessary to power the active horn with the appropriate external power supply at 220Vac / 24Vdc-1.5A Tema AA-39E3 code or the Tema AA-39P4 injector code.

7.3. 100V Audio Line for additional speakers away from the AD630S IP horn unit

For particular applications, it is possible to generate from AD630S a constant voltage audio line 100V with a power of max 20W using a Tema AD320/30 transformer to be connected to the SP1 power output. In this way it is possible to install several other additional loudspeakers (with internal transformer suitable for 100V line and selectable power) even at distances up to 200 meters from AD630S. The total sum of the powers of the installed speakers must not exceed the maximum power of 20W.



Some examples of speakers available on Tema catalog (not amplified, passive models)



AD330/15T Horn Speaker 15W / 8Ohm
with transf. 100V, sockets 15/7.5/3.7/1.9 W
response 300Hz - 7KHz, Dim. Diam. 210 x 240 mm



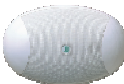
AD330/30T Horn Speaker 25W / 8Ohm
with transf. 100V, sockets 25/12.5/6.25/3.12 W
response 300Hz - 7KHz, Dim. Diam. 240 x 290 mm



AD335/06TP Wall Speaker 6W / 8Ohm
Transf. 100V sockets 6/3/1.5 W
response 180Hz - 16KHz, Dim. 218 x 216 x 120 mm



AD334/20TP Vandal proof Projector 20W
with transf. 100V, outdoor, sockets 20/10/5 W, IP65
response 150Hz - 15KHz, Dim. Diam. 180 x 145 mm, weight 2.4kg, grey color



AD337/06TP Oval wall speaker 6W / 8Ohm
with transf. 100V sockets 6/3/1.5W
response 180Hz - 10KHz, Dim. 258 x 169 x 72 mm, 0,8Kg



AD333/12TP Round speaker wall/ceiling flush mounting, 12W
with Transformer 12/6/3 W
response 80Hz - 15KHz, Dim. Diam. 200 x 62 mm (Hole 160-165mm)



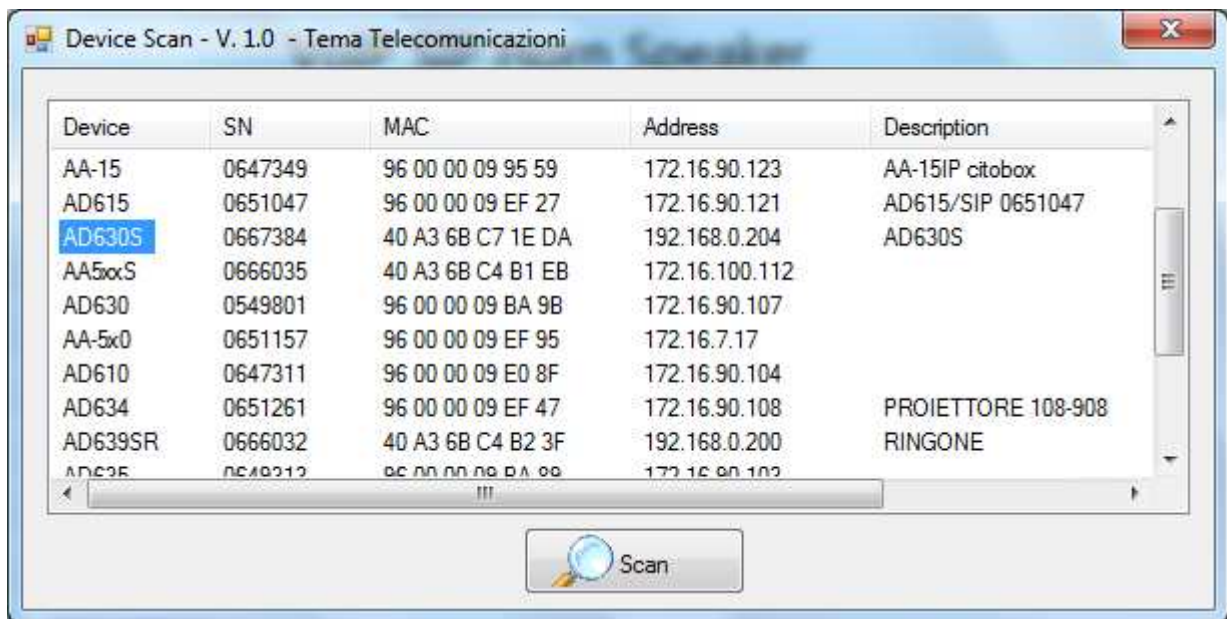
The speakers listed above are not produced by TEMA, but a selection of the best third-parties quality producers that are best suited to our production amplifiers and PA analog speaker systems and IP VoIP SIP for audio LAN. The components offered however fall into the corporate policies in terms of warranty and technical support.

8. PROGRAMMING

8.1. Preparation for programming the system parameters

Programming takes place through the WEB interface. To access, simply connect an Ethernet cable from a PC or switch to the LAN port of the AD630S.

The system is supplied with active DHCP (dynamic setting of the network address) for which the IP address is automatically assigned by the local DHCP server. To find out the assigned IP address, or, in the absence of a local DHCP server to be able to program one, use the appropriate scan program for TEMA devices on the network supplied with it called "**devicescan-tema.exe**".



This software will show all the TEMA devices present in the LAN with their respective serial numbers, MAC address, IP address, description of the devices. By double clicking on the device name it will be possible to manually change the IP address and the Netmask.



Please note that if the network setting is changed from Dynamic to Static, you will need to make sure you are using the same subnet configured on your computer.

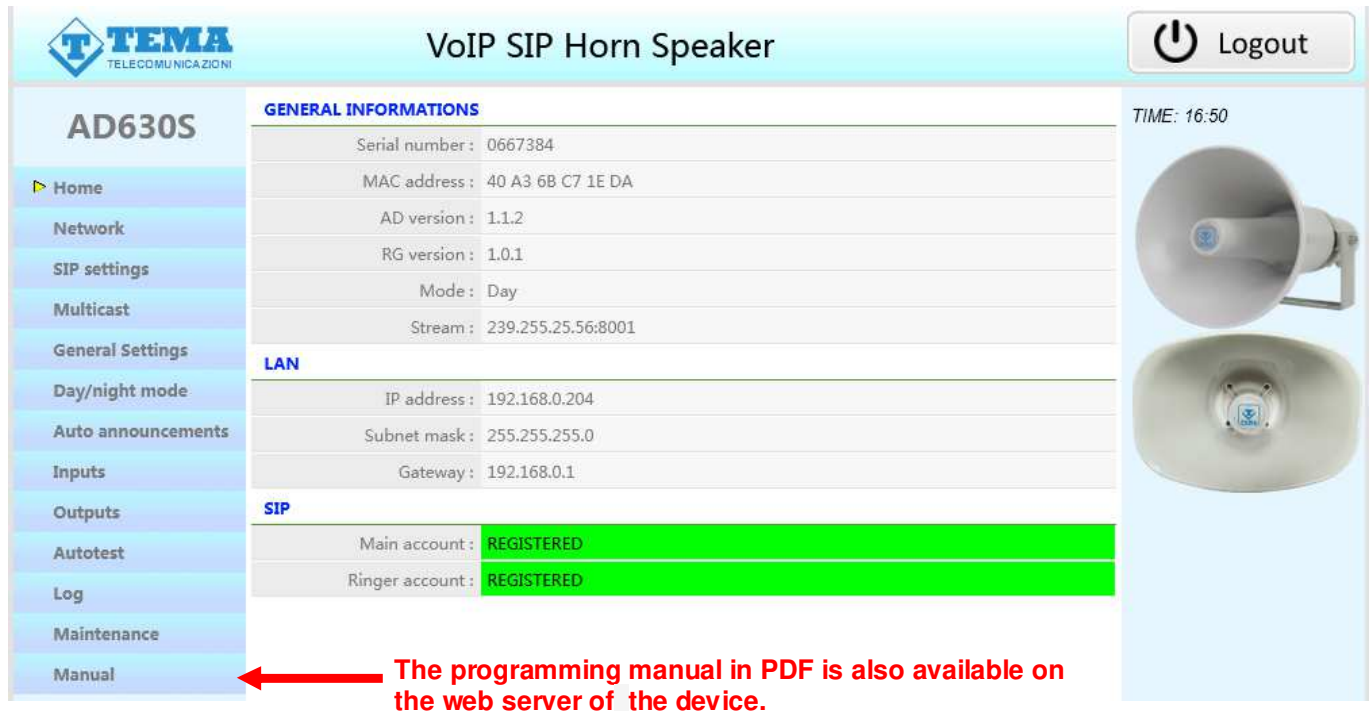
Programming takes place through the WEB interface. To access, simply connect an Ethernet cable from a PC or a switch to the LAN port of the AD630S.

8.2. Access to programming

To program the device, it is sufficient to use a normal browser, such as Explorer, Firefox, Chrome or other. The user / password to connect with are **master/master**. Once logged in, it will be possible to change the administration password for maximum security of your device, see par. 1.9

Use is very simple and intuitive, the menu for choosing the functions to be programmed is always visible on the left, while the configuration mask active at that time is shown on the right. Any changes will be confirmed with the **"Save"** button. Closing the browser or changing the page without selecting this button **will make any changes lost**.

As soon as the device is accessed, a mask will be presented which summarizes the general status of the system:



AD630S

VoIP SIP Horn Speaker

Logout

TIME: 16:50

GENERAL INFORMATION

Serial number :	0667384
MAC address :	40 A3 6B C7 1E DA
AD version :	1.1.2
RG version :	1.0.1
Mode :	Day
Stream :	239.255.25.56:8001

LAN

IP address :	192.168.0.204
Subnet mask :	255.255.255.0
Gateway :	192.168.0.1

SIP

Main account :	REGISTERED
Ringer account :	REGISTERED

The programming manual in PDF is also available on the web server of the device.

Any changes do not require the device to be restarted (except for changing the IP address and updating the software).

The address that appears next to the "Stream" field and the one programmed as # 11 on the Multicast web page (see the complete manual). It serves only as a reminder and facilitates the identification of the audio address assigned to each horn.

AD Version: indicates the version of the Main Firmware

RG Version: indicates the version of the "Ringer" Firmware

If the fields relating to the main account and the ring account appear in green, it means that the device is correctly registered on an IP-PBX. Otherwise it can work in P2P (Peer to Peer) and Multicast channels.

For the complete programming of the AD630S-AD630SA devices and other details, refer to the COMPLETE TECHNICAL MANUAL downloadable at the links:

<https://www.tema-ipaudio.com/en/products/ip-audio/sip-speakers/ad630/>

<https://www.tematlc.it/eng/audio-ip-en.asp>