

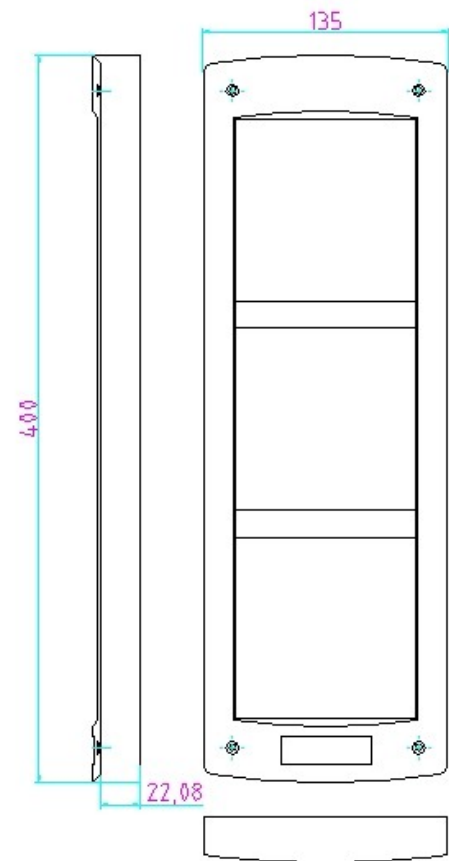
M Series

Technical Data

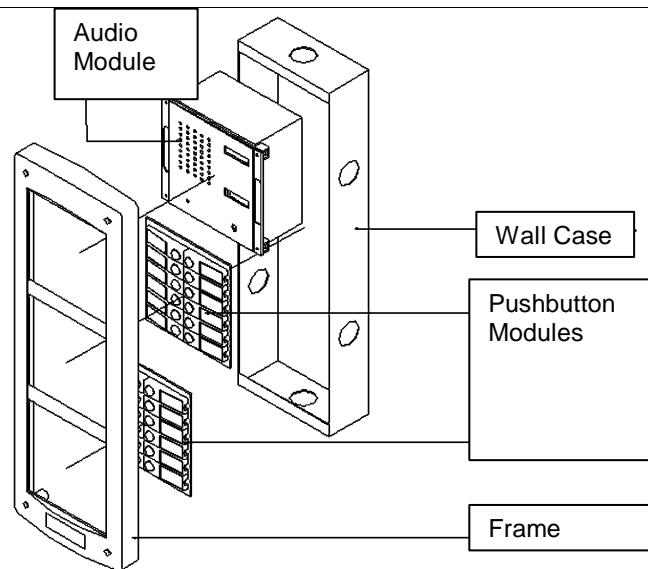
Measurements

Frame

Frame Measurements in mm.



The frame holds the audio and pushbutton modules.
The frame is attached to the wall case by means of 4 stainless steel allen type bolts.



Wall Case

The frames are mounted in wall cases, they have a capacity to hold 1, 2 or 3 frames.



1 Frame Wall Case

Example mounting a Wall Case for 2 frames

The maximum capacity with this configuration is:

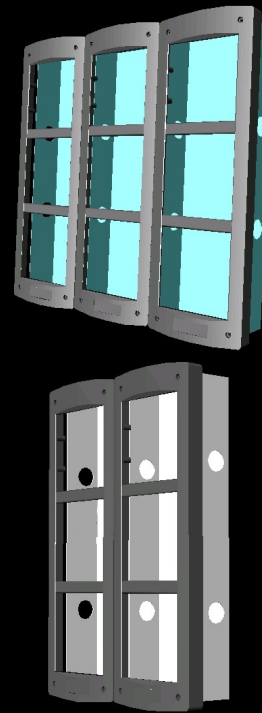
1 Audio Module

+

5 12 button modules

=

60 pushbuttons



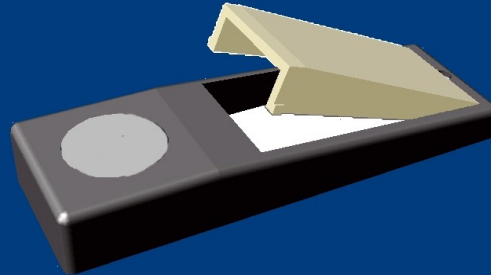
The 3 frame configuration holds up to 96 pushbuttons.

M Series – Technical Data

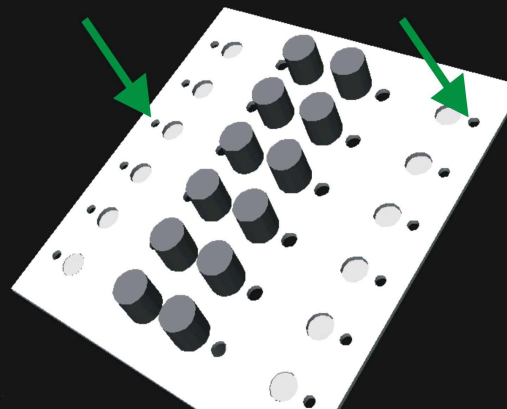
<p>Measures in mm</p>	
<p>2 Frame Wall case</p>	
<p>3 Frame Wall case</p>	

Label holders

To mount the transparent protector you must first place the thinnest edge as shown in the image and then push downward the other side.



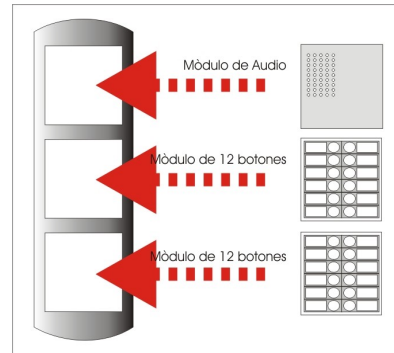
To remove the transparent protector you must insert a needle or little object in the holes indicated in the image and push the protector off the housing.



Montaje de módulos en el bastidor

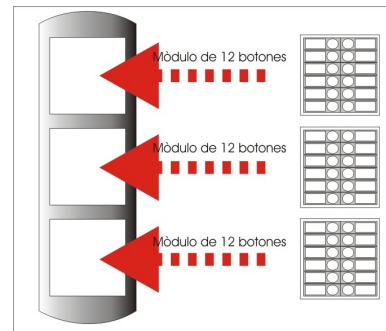
How to set up an access panel for 24 apartments:

- 1 Audio Module
- +
- 2 12 pushbutton modules.

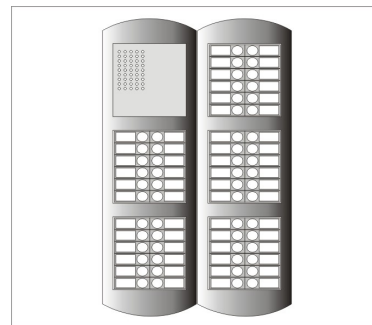


How to set up an additional 36 pushbutton frame

- 3 12 pushbutton modules.



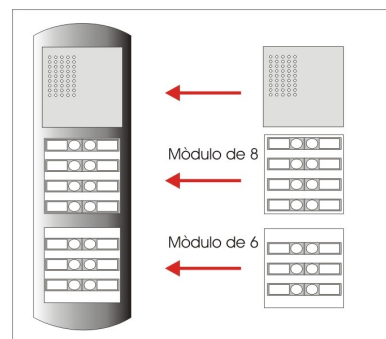
Example for 60 apartments



Modules has capacity of 12,10,8, 6,4 y 2 pushbuttons.

Their combination let us fill any pushbutton requirements .

In this example we have placed 1 Audio Module + 1 8 pushbutton module + 1 6 pushbutton module required for a building with 14 apartments.



Wiring:

M-A4H-01 Audio Module.

Basic:

4 Wires are required in paralell from Audio Module to the handsets for the audio circuit

plus:

1 Wire for door opening

n wires used for calling each handset (1 per handset).

1 Wire for calling the concierge (if needed).

Video:

1 coaxial cable

2 wire for power the video amplifiers (if the amplifiers will be powered from a source placed outside of the apartment)

1 Control cable for turning the door camera on when a monitor is used.

Power Supply:

The Audio and call system needs a 18V DC 1 Amper Switching power supply, it is also used to power the video camera.

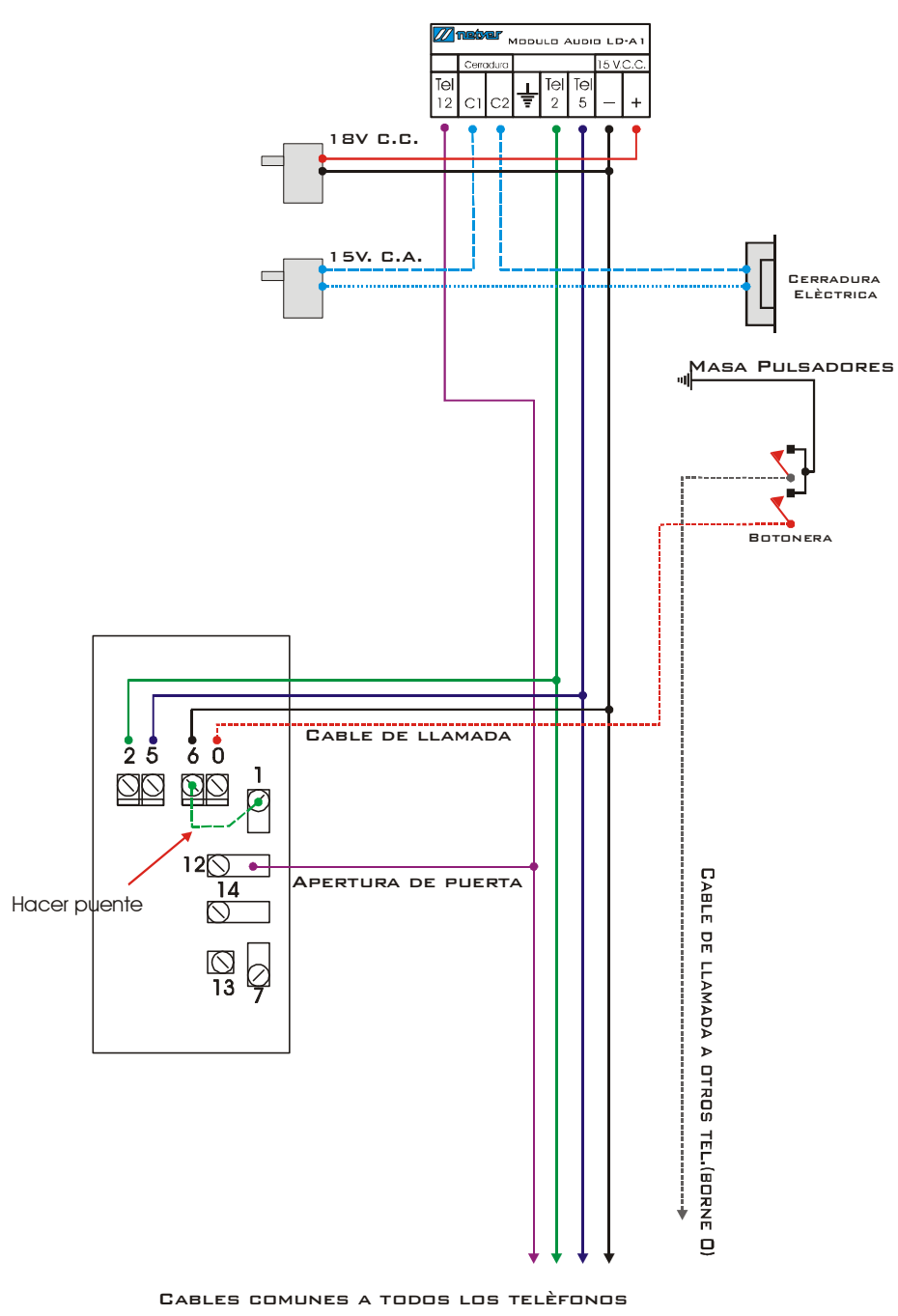
If your system doesn't need door unlock from the handsets an lighted pushbuttons, this is the only power source needed for all the system to work.

The illumination of the pushbuttons requires a 12V 500 Miliamper AC power supply, which is also used for act the electric door unlock system.

If the video monitors will have each its own power supply, you need a 18V DC 1 Amper Switching power supply for each one. But if the power supply is to be placed outside the departments you must use a 12V 4 amper or more power supply.



Conexión serie M sin Luz



Audio Module Terminals:

Tel 12: Used to actuate the door unlock system.

When this terminal receives negative signal from the handsets, a normal open relay closes the contacts C1 y C2.

C1 y C2: Normal Open contacts for connecting the door unlock circuit.

Ground: Power for the pushbutton illumination.

Tel 2: Handset Speaker.

If this wire is not connected you will hear no sound in the handsets from the front panel microphone.

Tel 5: Handset microphone.

If this wire is not connected:

- The Audio module is not activated.
- There will be no audio in the outdoor unit, nor in the handsets.
- The Audio Module Led will remain green indicating power source connected but no communication (the led must be red when communication is established or handset outside the base).
- The door panel will be able to generate the calling signal when you push any button but communication could not be established.

Voltaje Measurements: With system in standby (with all handsets placed in it's bases or no wiring connected) you must measure 12 volts DC between this terminal and the one labeled **15VCC**.
With a handset out of its base the measure must be 7,5 VDC aprox.

15VCC (-): System power source and terminal 6 of handsets.

- If this connection is missed the system is unable to power up
- The audio module led remains off .
- If the connection between this terminal and the terminal 6 of the handsets is missing or the wire is damaged, you will hear a loud sound in the handset.

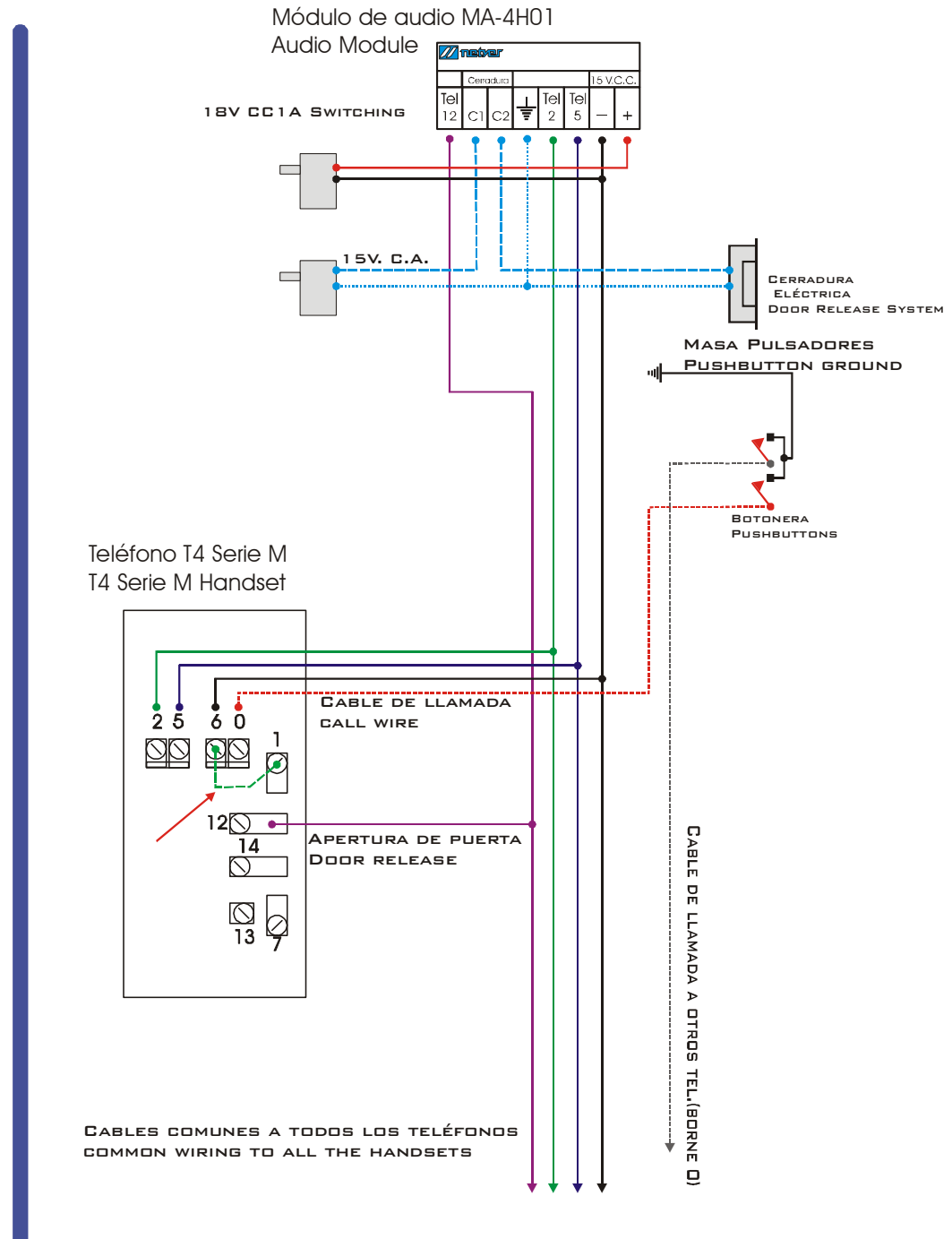
15VCC(+): System power source.

- Consumption in standby 15 Miliamper.
- Consumption while a calling button is pressed 180 Miliamper.
- Consumption with a handset out of its base: mín. 100 miliamper, max. 180 miliamper.



Conexión Serie M con Luz

M Series connections



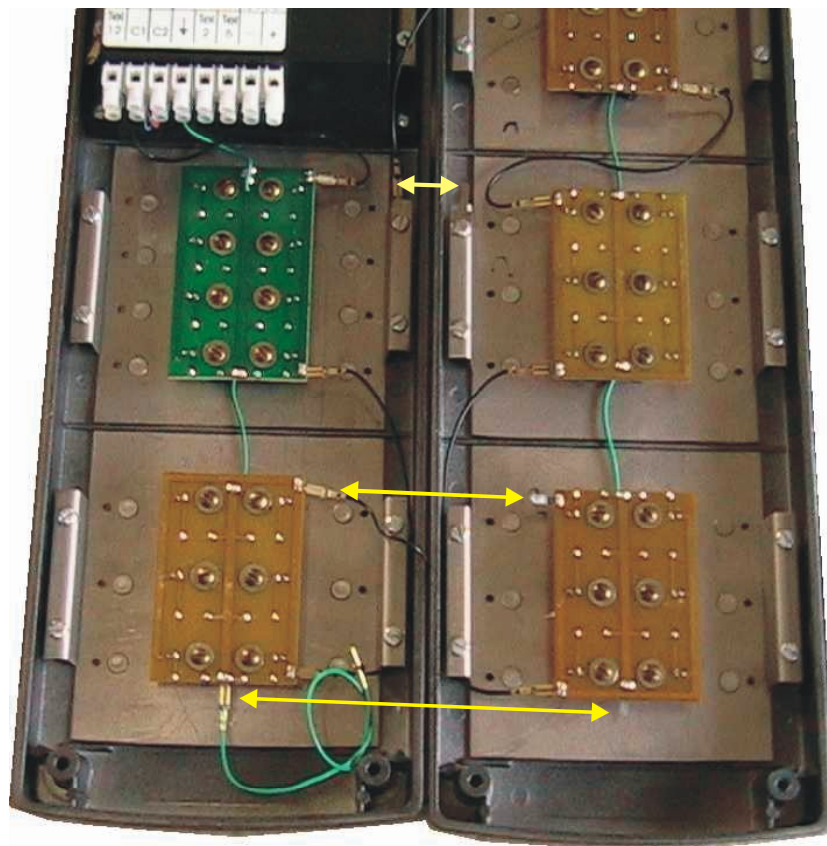
Electrical Connections Between Two Frames. (For illumination and ground)



Serie M, Punteado de los bastidores

Señor Instalador

Para unir eléctricamente los bastidores, deberá conectarlos en los tres puntos marcados en la foto mediante los cables provistos.



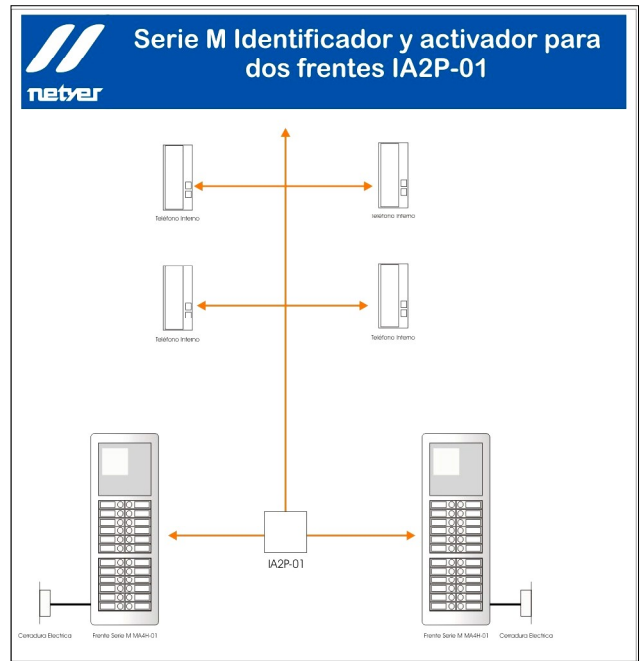
Two Access System:

(IA2P-01)

IA2P01 manages two door panels.

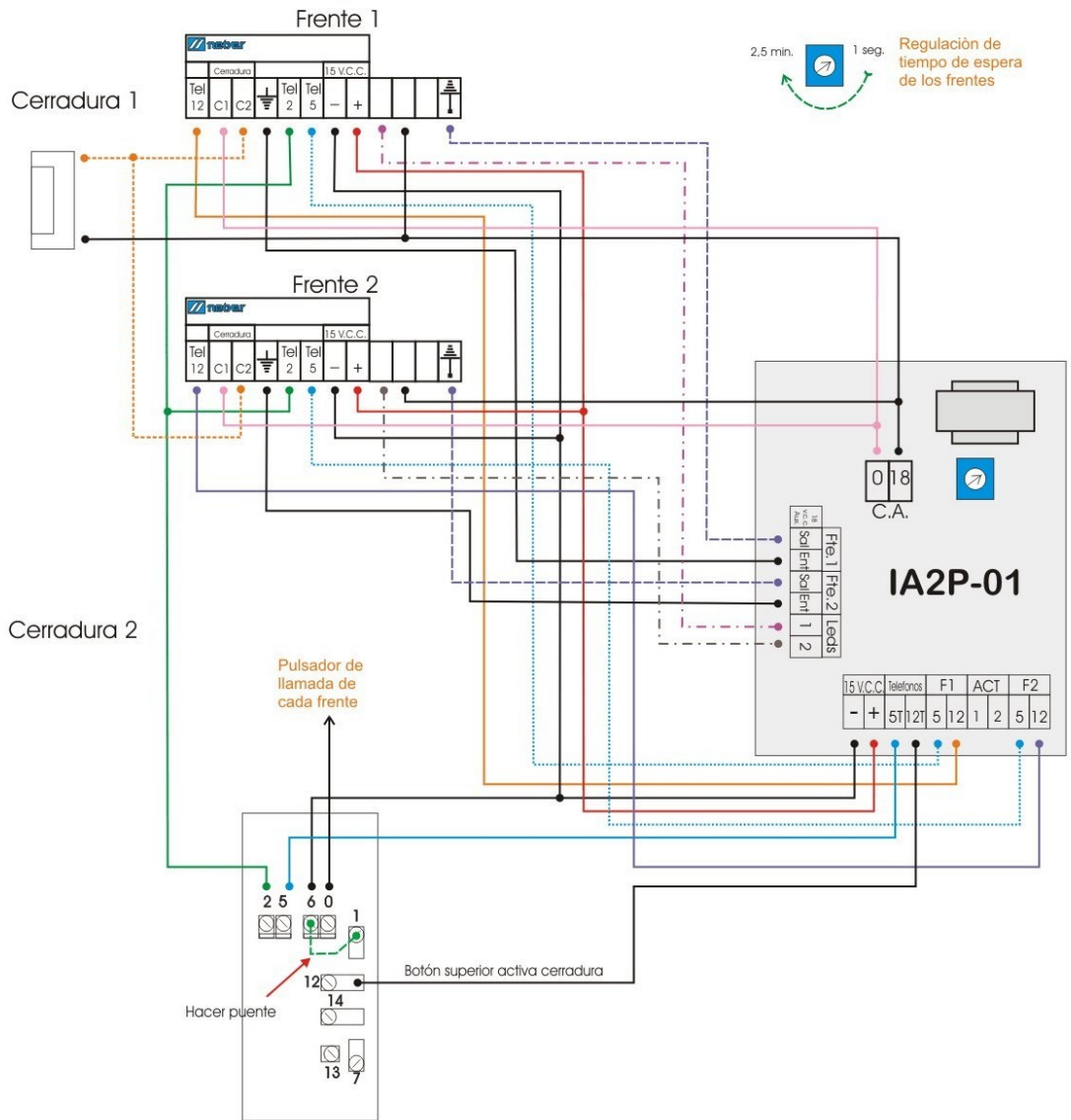
Features:

- IA2P-01 powers all the system, so it replaces the power supplies needed in one access systems.
- It manages two audio modules with a single line of communication.
- Indicates the visitors (by means of a led, when a communication between the other access panel and a handset is in process.
- It has a timer that waits from 0 to 2 minutes for a handset to be lifted after a calling signal is received, during this time, the calling panel is active and the other panel remains blocked and an indicator led is lit.
- When a communication is established, the panel remains connected until the handset is placed in its base.
- As a matter of security, when there is no communication in process, the audio system remains deactivated and the door unlock system cannot be used.
- The door unlock system can only be activated when a communication is in process, and only will work with the activated panel. Therefore, one single pushbutton in the handsets will be needed to operate the two panels.
- As an additional option, one or more handsets can indicate (by means of leds), which panel is calling, also additional buttons can be added to one or more handsets in order to force the panels to activate even if no calling is received. This options are recommended for a concierge handset. (it requires additional wiring between the IA2P-01 and the handsets)



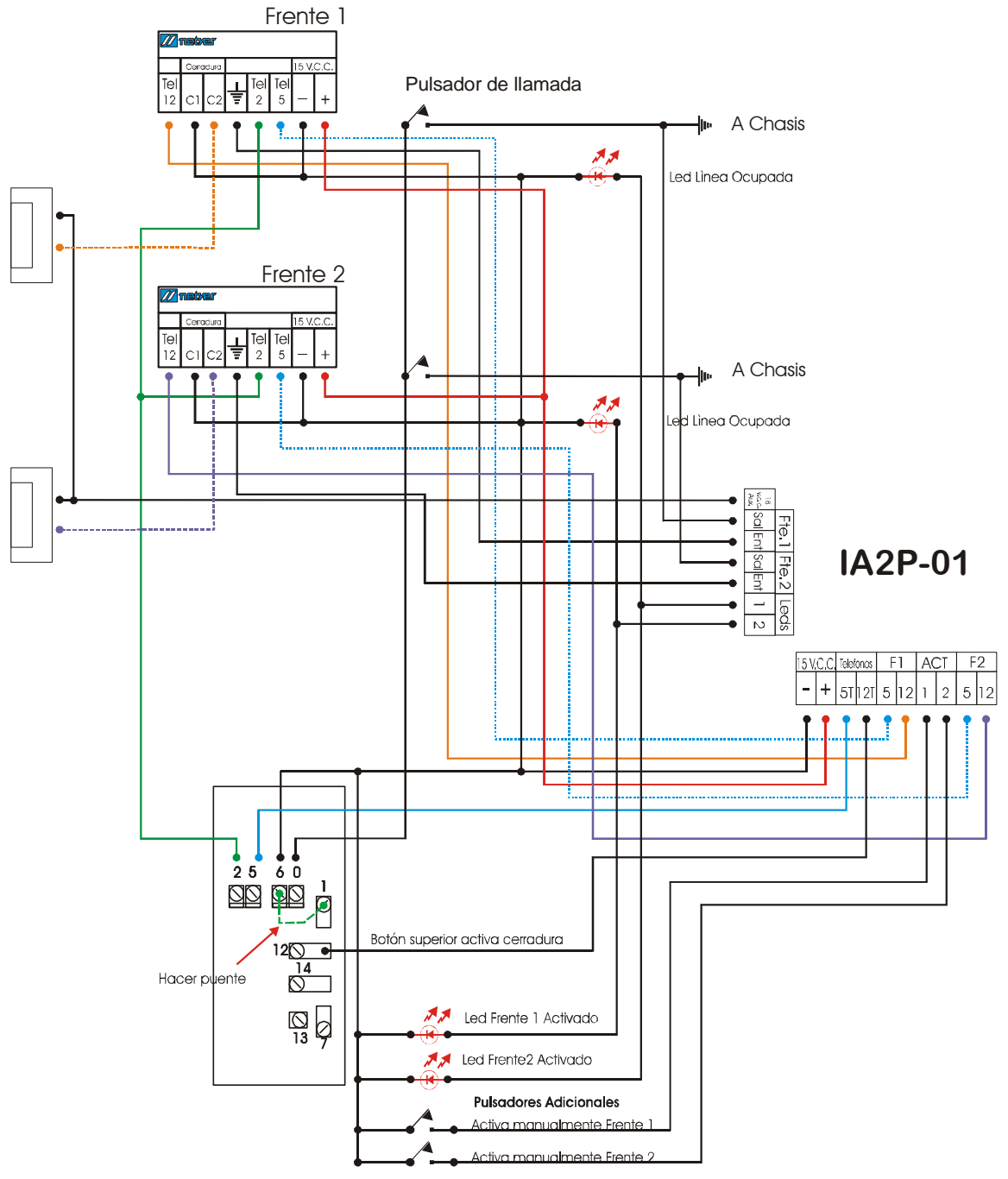


Serie M Dos Frontes con IA2P-01 Sistema 4 Hilos para un solo acceso conexión de teléfono básica

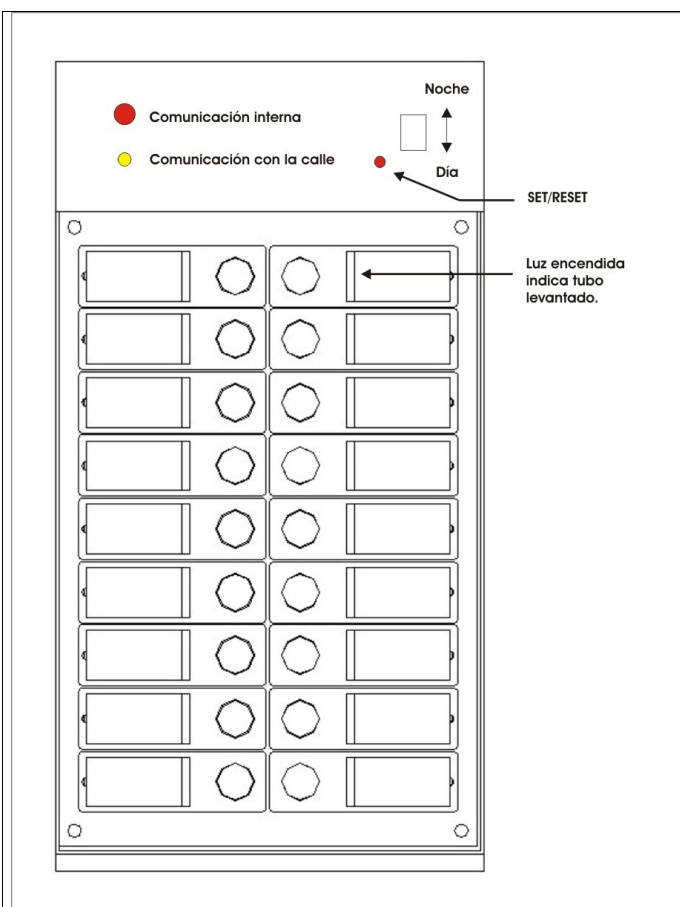




Serie M Dos Frentes con IA2P-01 Sistema 4 Hilos



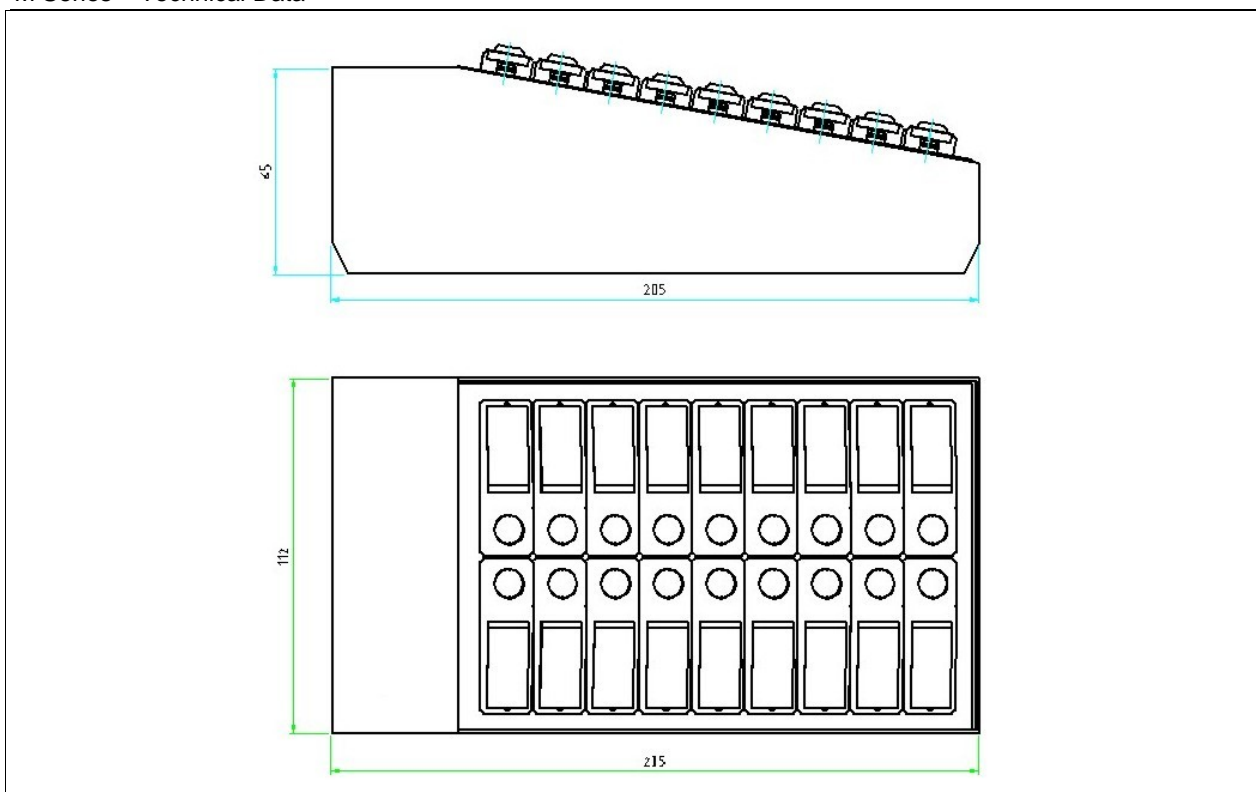
M Series: Concierge Central



Features:

- The Concierge has a pushbutton panel to establish communication with the handsets. This pushbuttons will lit singly when a handset is lifted.
- The handset of the apartments can call the concierge. When the concierge responds, he must press SET/RESET to mute the audio of the door panels, when both handsets are placed in their bases or SET/RESET is pressed again, the audio between the nadssets and the door panel is reestablished.(*)
- If the concierge is who calls to a department, the doorpanel audio is blocked automatically.(*)
- The red led indicates an internal communication in process.
- The yellow led indicated that the audio of the door panel is activated.
- **Day/Night function:** If the selector is placed in **Day mode**, all the callings generated in the door panel will be intercepted by the central and will not call the apartments but will be received by the concierge, if the concierge decides will transfer the communication to the apartment. When the selector is in **Night mode**, all the callings will be directly received by the corresponding apartment handset.

(*) See different ways of wiring.



Operating of Day/Night feature of concierge panel:

Intercom mode:

Day Position (Manual Intercom, doorpanel blocked):

- Red Led on.
- All callings are intercepted by the central.
- All system remains in intercom mode.
- The handsets cannot communicate with the door panel.
- Any calling from the doorpanel will not be received in the apartment handsets but will be indicated in the concierge panel.
- To communicate with the doorpanel the concierge must switch to Night mode.

Night Position (Auto Intercom) :

- Red led off.
- All callings from the doorpanel will be received in the corresponding apartment handset, there will be a low sound in the concierge panel indicating the call.
- Every handset can communicate with the door panel.
- If an internal calling is generated from or to the concierge handset, the audio of the doorpanel is muted automatically (depending of how is configured the system). The doorpanel audio remains muted until all handsets are placed in their baese. The red led lights indicating the internal communication status.
- The concierge can manually activate or cancel the internal communication by pushing the SET/RESET button, in this case, the yellow led will indicate if the doorpanel audio is blocked or not.

To comunicate two apartments from the concierge panel:

Two or more apartments can intercommunicate from the concierge panel with this procedure:

1. An apartment calls the concierge and asks to speak with other apartment.
2. Automatically the system enters intercom mode muting the doorpanel audio.
3. The concierge has to put his handset in the base and call the other apartment.
4. When the calling is made, the concierge can lift his handset to speak or leave it in its base. He will see the light of the pushbutton corresponding to the apartments that are having the conversation. When the communication ends, the system returns to the normal working mode.
5. If a call is received from the doorpanel while an internal communication is in process, it will be signaled in the concierge panel only, this calling will not be received in the apartment, the concierge can then cancel the internal communication and call the apartment from his panel.
6. The concierge can stop the internal communication pushing SET/RESET.

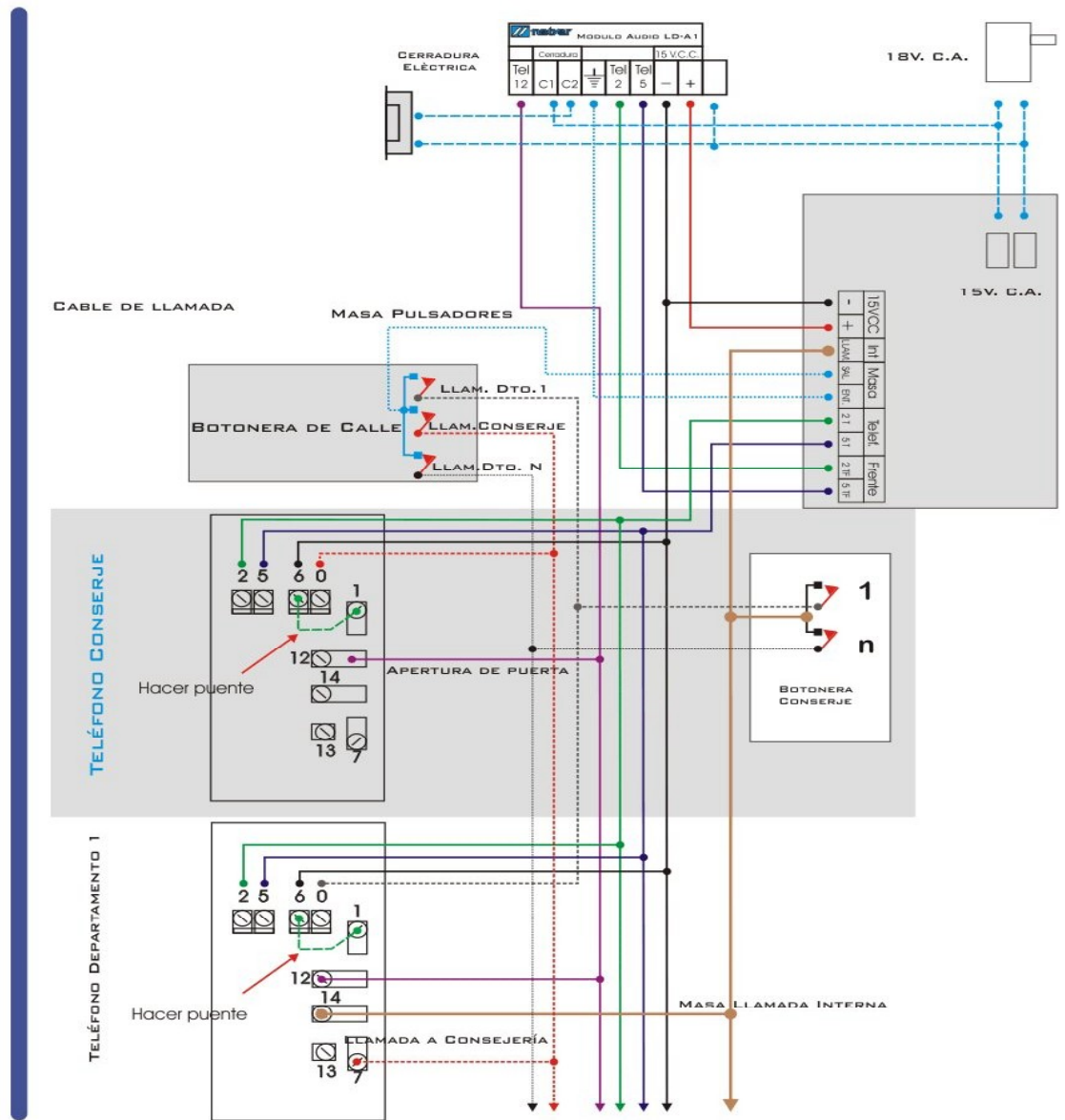
DIFFERENT WAYS OF WIRING

This wiring allows the doorpanel to be automatically blocked when an internal communication occurs.

- Note that the INT LLAM output of the central is connected both to the lower button of the apartment handsets and the central ground terminal. This will force to automatically block the audio of the doorpanel when a calling between the apartments and the central is generated.
- The apartment handsets calls the concierge by pushing the inferior button. The normal communication with the doorpanel is re-established when placing all the handsets in its bases or pushing SET/RESET.
- Upper button of the apartment units are used to unlock the door.

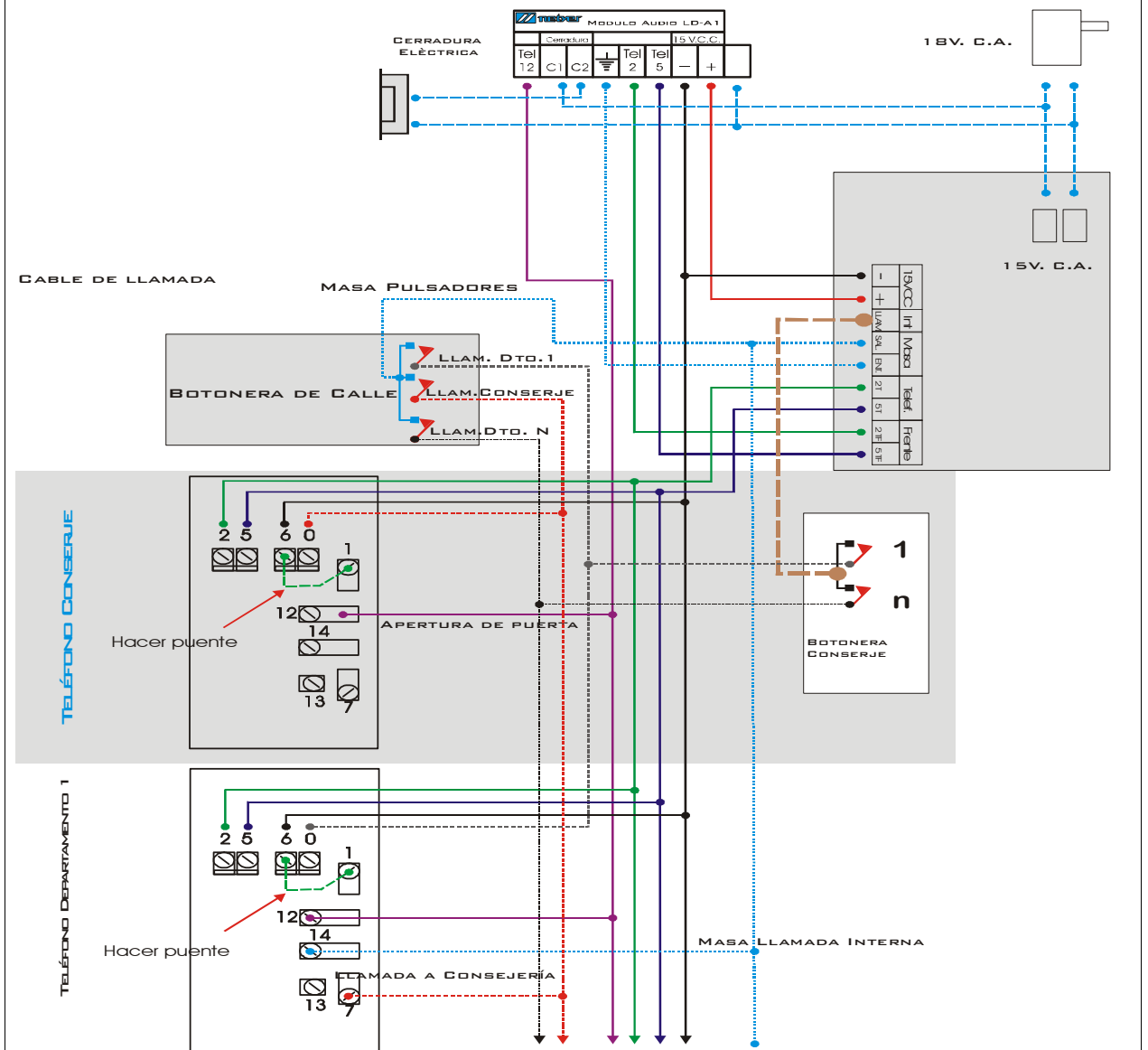


Conexión Serie M con Luz y
Central de Consejería (Corte automático en llamada interna)



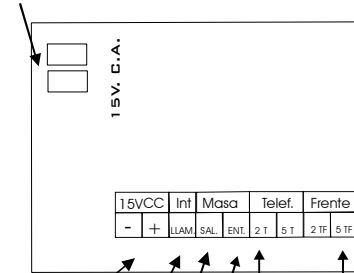
- Manual Operation Wiring (when an internal call from an apartment is generated the doorpanel do not mute)**
- When an internal calling from any apartment handset to the concierge is generated, the doorpanel audio muting must be manually done by the concierge by pushing **SET/RESET**.
 - Note that the **INT LLAM** output of the central is connected only to the ground terminal of the central. The ground for the internal callings is connected to **MASA SAL** terminal, which is the same terminal used to power the doorpanel pushbuttons.
 - Anyway, any calling generated by the concierge panel to an apartment will block the doorpanel audio automatically.
 - The apartment handsets calls the concierge by pushing the inferior button. The normal communication with the doorpanel is re-established when placing all the handsets in its bases or pushing SET/RESET.

Conexión Serie M con Luz y Central de Consejería (Corte Manual en llamada interna)



Concierge Central: Terminal Description

Power input, 18 volts AC, 1 Amper.
 Central power supply, door panel illumination,
 door unlock system.
 Can be powered with DC but requires 15 volt
 minimum.



15vDC output terminal.
 15 v DC regulated power output. 1 Amper max.
 Audio Module power supply and concierge
 central leds.
 Can measure up to 16,5v without charge,
 cannot measure less than 15 volts.

INT LLAM Terminal.

Power output for internal callings ground.
 If the 14 terminal of the handsets are
 connected here, the system will automatically
 mute the doorpanel audio when a calling is
 made between the apartment and the
 concierge
 In order to avoid a communication in process
 between the doorpanel and an apartment to
 be interrupted by an internal call to the
 concierge, it is recommended to connect the
 14 terminal of the handsets to the MASA SAL
 terminal of the central. Doing this the internal
 calling will be received in the concierge panel
 but the doorpanel is not muted, the concierge
 must press SET/RESET to mute the doorpanel
 after checking that there is no other
 communication in process.

MASA SAL Terminal:

Ground Output for doorpanel pushbutton
 power.

MASA ENT Terminal:

Calling tone input from audio module.
 The central uses the audio tone generated in
 the audio module for making its own calls and
 also from the door panel.
 If not connected callings from the central and
 from the door panel cannot be generated.

FRENTE 5 TF y TELEF: 5T Terminals

Frente 5 TF: The handset microphones signal
 enters the central in terminal 5T, passes through
 the central and goes out to the doorpanel with
 5TF terminal

Bornes FRENTE 2 TF y TELEF: 2T

Frente 2TF: The handset speakers signal enters
 the central in terminal 2T, passes through the
 central and goes out to the doorpanel with 2TF
 terminal

**Note: If there is any malfunctioning in the system you can
 bridge the following terminals:**

2T with 2TF

5T with 5TF

SAL with ENT

By doing this the handsets are wired straight to the doorpanel
 without entering the concierge central.



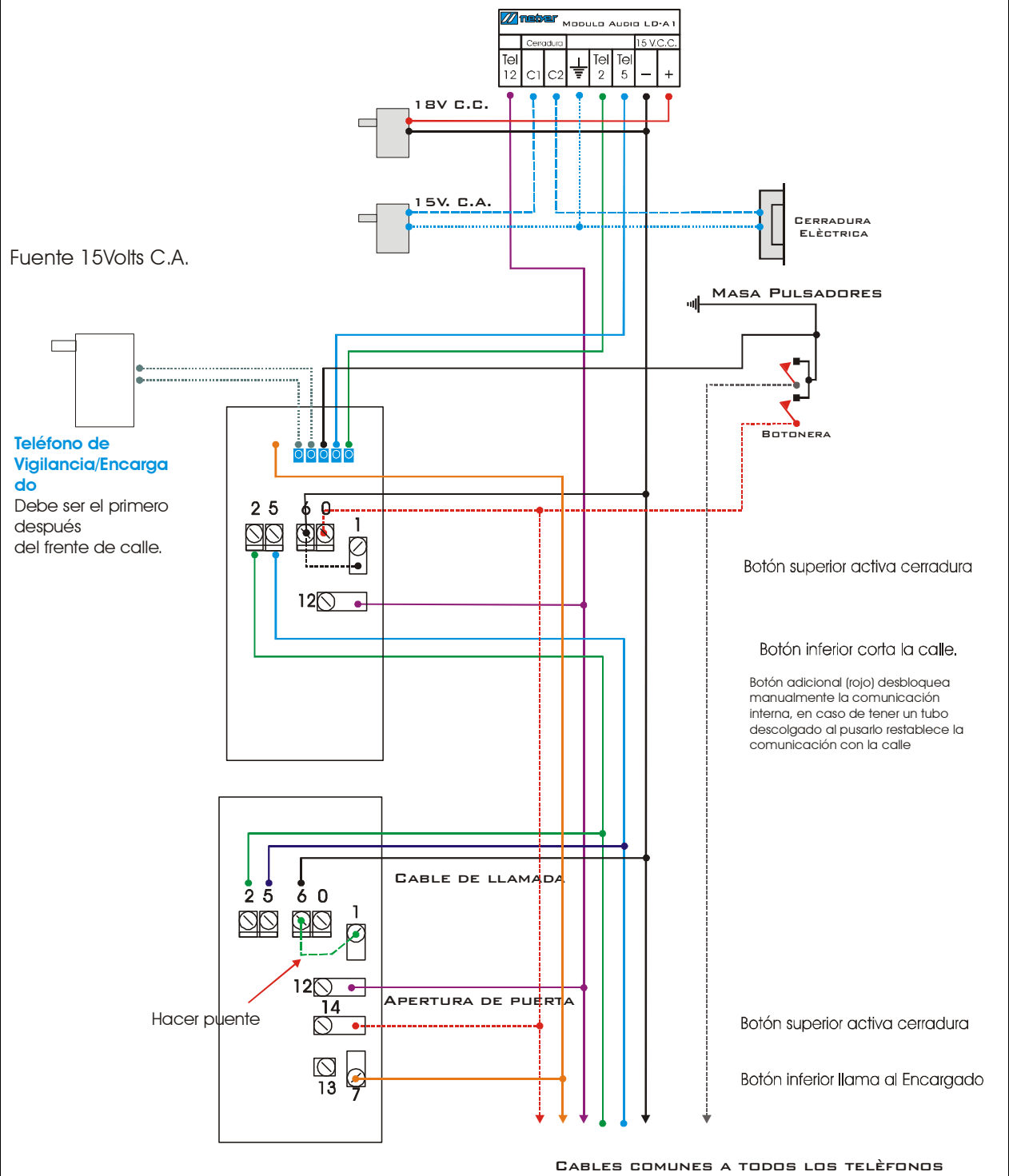
Intercom Circuit CPSM-01

The CPSM-01 adds intercom capability to a basic M Series system.

The CPSM-01 must be installed into a handset, the first handset in order from the doorpanel is recommended due the audio connections between the doorpanel and the apartment handsets are controlled by this circuit .



Conexión Serie M con Luz y Control de Porteria



Video Wiring

The video capability requires that the CEM-01 circuit to be installed into the handsets. This circuit manages the turning on/off of both the video monitor and the doorpanel camera.

CEM-01 Turns the monitor and camera on when:

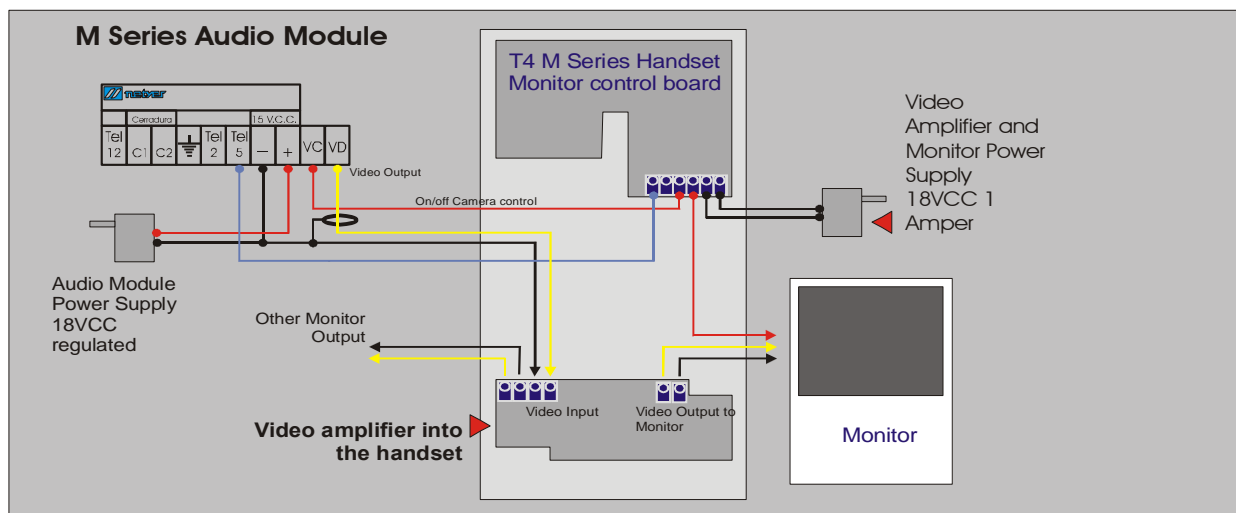
A calling from the doorpanel is recieved in the apartment.

The corresponding button in the handset is pressed.

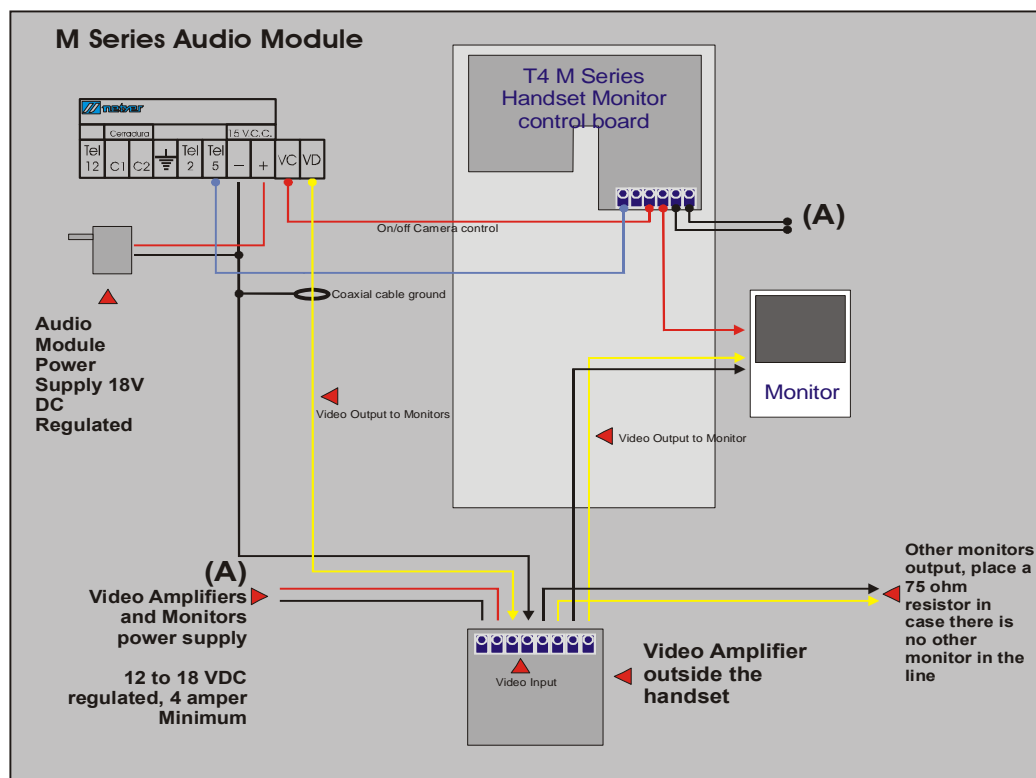
The handset is lifted from his base.

It also controls the monitor to turn off automatically.

Connections with video amplifiers inside the handsets.

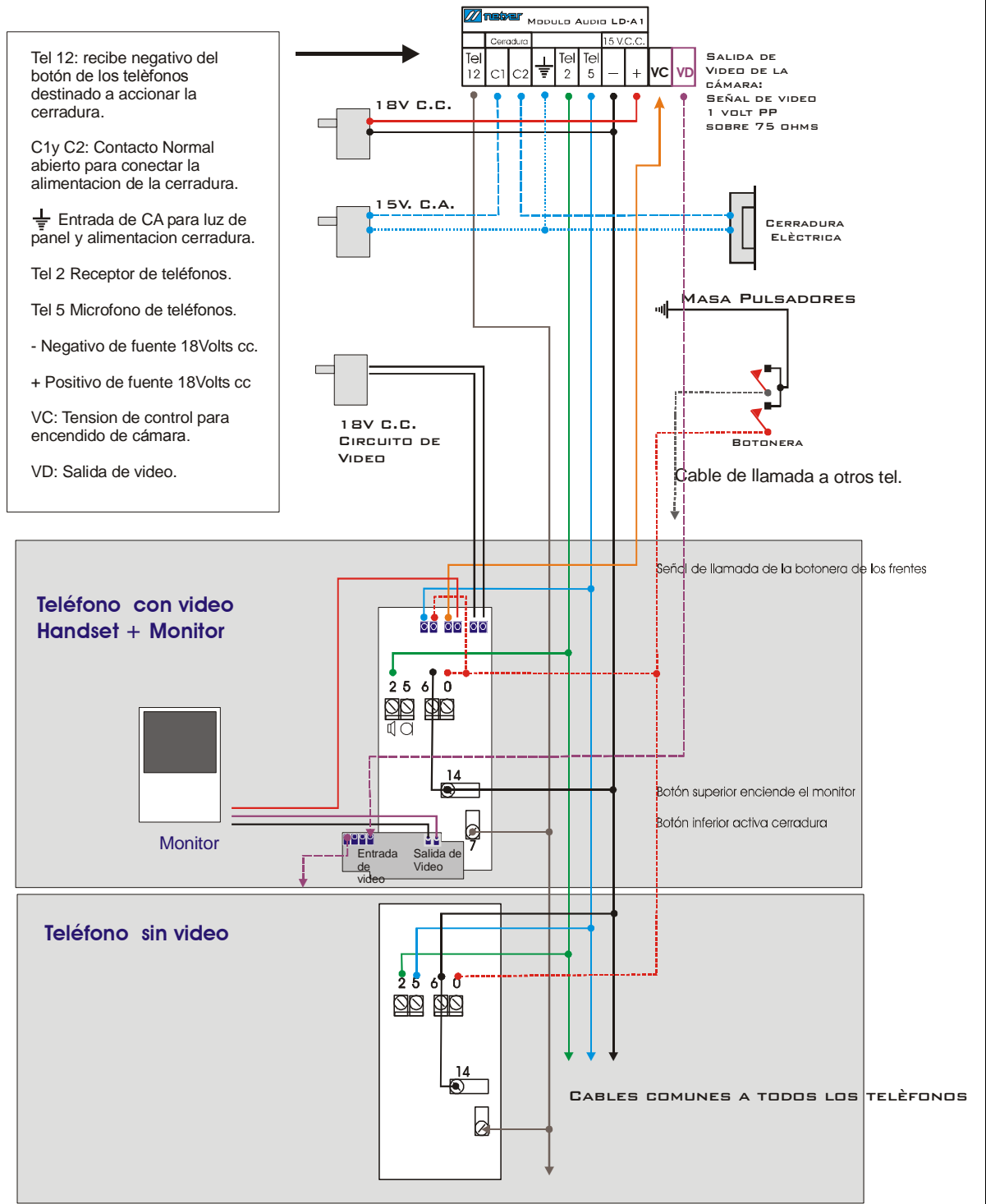


Connections with video amplifiers outside the handsets.





Conexión Serie M con Luz y Cámara de video



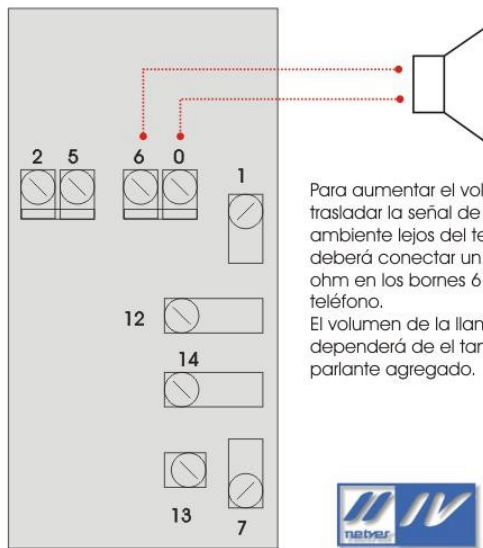
Additional items:

To increase the volume of the calling sound of the handset or have the calling signal in another place away from the handset unit you must connect an 8 ohm speaker as indicated below. You can place up to 5 handsets into a single apartment to receive a call at the same time in order to hear it from any location of the apartment.

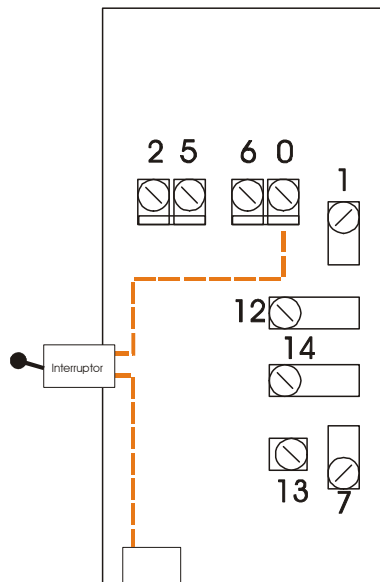
Maybe any 8 ohm speaker, the greater the diameter of the speaker cone, the louder the output volume.

According to the diagram, both the handset speaker and the external speaker will work at the same time.

Aumentar el Volumen de llamada del telefono T4-Serie M



If you wish to cancel the calling signal received by the handset, you must place a switch connected to the yellow wire that connects the jack and the 0 terminal.



<p>Troubleshooting and FAQ</p>	
<p>I have replaced the FA-12V power supply for an 12 volts DC regulated and the system powers on and I can speak but I cannot make calls.</p>	<p>Replace the Power Supply for a 12 volt DC NOT REGULATED. You should measure 16 volts minimum, because the calling signal generator IC requires 15 VDC minimum.</p>
<p>The system powers up and makes calls, but when I lift the handset off the base a strong sibilant sound appears both in the handset and the doorpanel.</p>	<p>Check the connection between the negative terminal of the audio module (-) and the handset terminal 6.</p>
<p>There is a handset out of its base (red led indicator in the doorpanel audio module). How can I know in which apartment is the handset?</p>	<p>Press the calling buttons of the door panel one at a time. You will see that while a button is pushed the red led switches green and then red again. When the button corresponding to the handset out of its base is pressed, the led will not switch to green remaining red</p>
<p>I want to call the apartment whose handset has been left out of its base to tell the person who is living there to correct this situation.</p>	<p>Connect momentarily the terminal 2 of the audio module and the pushbutton ground connection by means of a wire. Doing this you will be sending the calling tone through the speaker connection to all the handsets, but only the handset out of its base will receive the calling sound. Be careful not to do this while there is a conversation in process.</p>
<p>I need to add another handset in an apartment where there is one already installed.</p>	<p>You can add up to 5 handsets in parallel. The more handsets you add, the louder the calling tone you will hear in each handset.</p>
<p>The last handset will be placed 100 meters away from the doorpanel. Will I have problems with the audio quality or the functioning of the door release system?</p>	<p>M Series systems has been tested using up to 600 meters of telephonic wiring, from that distance is also able to actuate the door release system relay placed in the audio module.</p>
<p>When I connect the power of Concierge Central all the lights of the pushbutton labels remain lit.</p>	<p>If you don't have installed the apartment handsets or if the handsets are unplugged from its bases it is ok and do not mean a failure. The Central detects the handset when it is connected and placed in the base and turns the light off. If there are more pushbuttons than handsets installed, the light of the missing ones will remain lit To turn off the leds corresponding to handsets not installed a resistance of 100 to 220 ohms must be connected between the pushbutton terminal and the negative (-) of the central.</p>