



Cód. 50120105



Audio  
door entry system  
4 + 'n' installation

# Nexa 90

Instructions manual

T655 ML rev.0112

First of all we would like to thank and congratulate you for the purchase of this product manufactured by Golmar.

The commitment to reach the satisfaction of our customers is stated through the ISO-9001 certification and for the manufacturing of products like this one.

Its advanced technology and exacting quality control will do that customers and users enjoy with the legion of features this system offers. To obtain the maximum profit of these features and a properly wired installation, we kindly recommend you to expend a few minutes of your time to read this manual.

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## SAFETY PRECAUTIONS

- ☞ Install or modify the equipment without the power connected.
- ☞ The installation and handling of these equipments must be performed by authorised personnel.
- ☞ The entire installation must be at least 40 cm. away from any other installation.
- ☞ With power supply:
  - ⚠ Do not use excessive force when tightening the connector screws.
  - ⚠ Install the power supply in a dry and protected place without risk of drip or water projections.
  - ⚠ Avoid to place it near to heating sources, in dusty locations or smoky environments.
  - ⚠ Do not block ventilation holes of the unit so that air can circulate freely.
  - ⚠ To avoid damage, the power supply has to be firmly fixed.
  - ⚠ To avoid an electrical shock, neither remove the protection cover nor handle the connected wire in the terminals.
  - ⚠ Check the proper specified input voltage to "PRI" terminals of the transformer.
- ☞ With telephones:
  - ⚠ Do not use excessive force when tightening the connector screws.
  - ⚠ Install the telephones in a dry and protected place without risk of drip or water projections.
  - ⚠ Avoid to place it near to heating sources, in dusty locations or smoky environments.
  - ⚠ Do not block ventilation holes of the equipments so that air can circulate freely.
- ☞ Before to connect the system, check the connections between door panel, telephones and transformer connection.
- ☞ Do always follow the enclosed information.

- ☞ Audio system with 4 + N wires installation.
- ☞ 1 access door panel.
- ☞ Up to three telephones in the same apartment.
- ☞ Up to 100 apartments with buzzer call type, (max. 10 push buttons modules).
- ☞ Up to 200 apartments with electronic call type, (max. 20 push buttons modules).
- ☞ Selectable (electronic or buzzer) call type on EL655 sound module.
- ☞ Acoustic call acknowledgement signal.
- ☞ Maximum distance between transformer and door panel (buzzer type): 150m. / 2,5mm<sup>2</sup> section.
- ☞ Maximum distance between transformer and door panel (electronic type): 200m. / 2,5mm<sup>2</sup> section.
- ☞ Maximum distance between lock release and door panel: 200m / 2,5mm<sup>2</sup> section.
- ☞ Maximum distance between door panel and last telephone: 300m.
- ☞ Just 1 TF-104 transformer (12Va.c., 1.5A) will be required for door panel.
- ☞ A.c lock release operated by relay.

## SYSTEM OPERATION

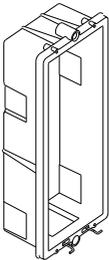
- ☞ To make a call the visitor should press the push button corresponding to the apartment he wishes to contact. An acoustic tone will be heard confirming the call as the push button is pressed. At this moment the call will be received at the telephone in the dwelling.
- ☞ To establish communication pick up the telephone handset.
- ☞ To open the door, press the door release push button at any moment.

## DOOR PANEL DESCRIPTION

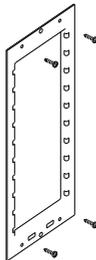
**D**oor panel description.

General detail of parts, for assembly the door panel.

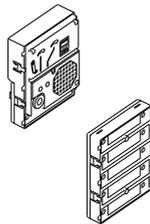
Embedding boxes



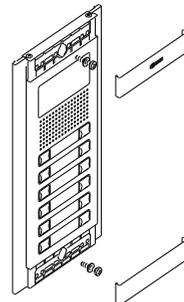
Frame modules



Electronic modules

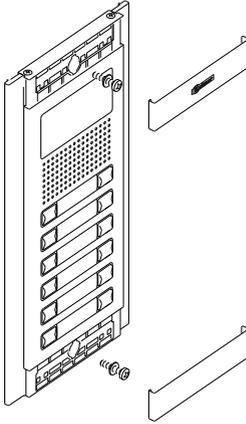


Aluminium modules

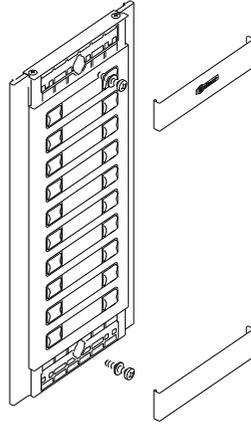


## D oor panel description.

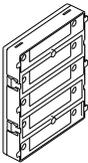
Main module



Push button module



Sound module  
EL655 , sound module.



Push buttons electronic module  
EL610A , for 5 single push buttons or 10 double push buttons.

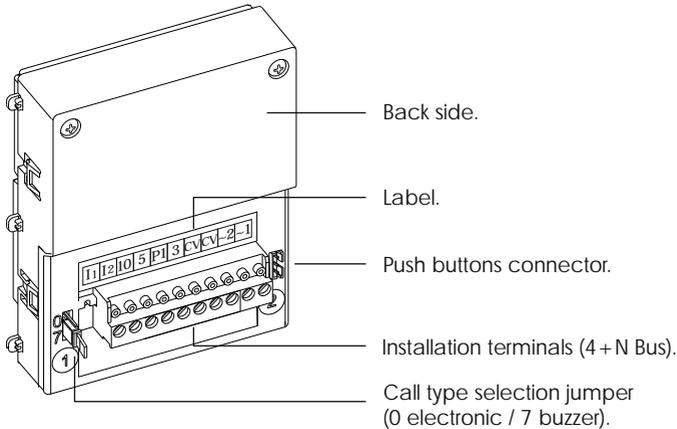
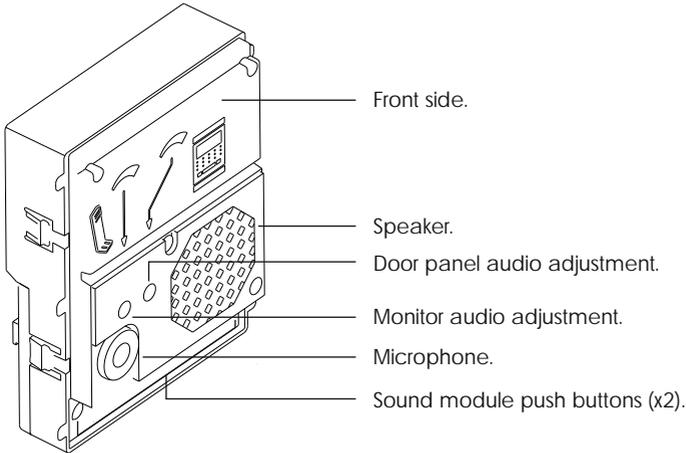


Short connection cable, it is supplied with EL610A module (8 cm length).  
For the connection of the push buttons between the sound module EL655 and the push buttons module EL610A and between push buttons modules EL610A of the same embedding box.



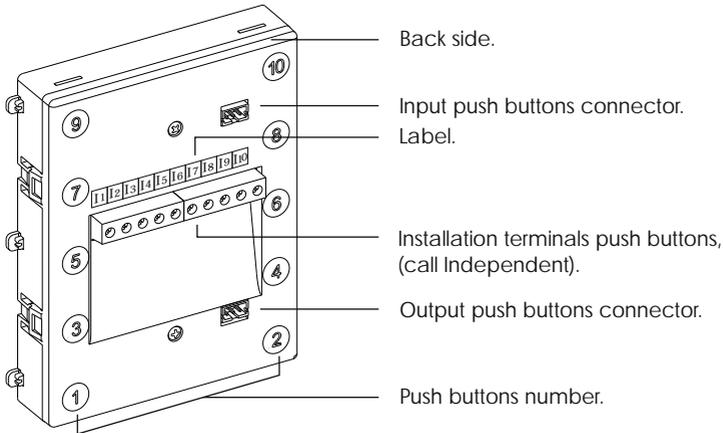
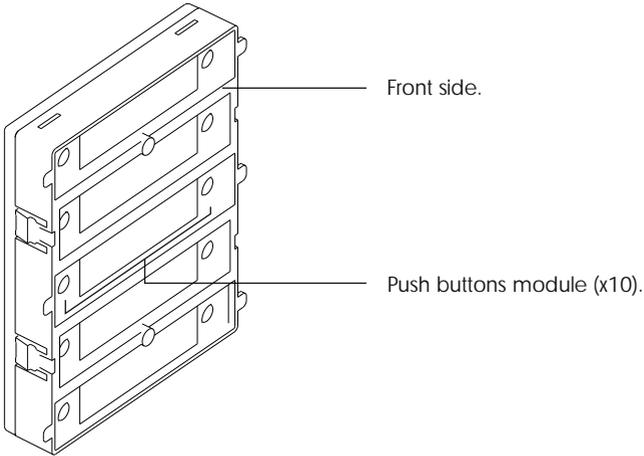
Connection cable RAP-610A (55 cm length).  
For the connection between push buttons module EL610A the different embedding boxes.

## Sound module EL655 description.



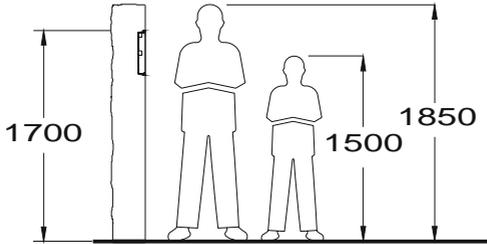
- I1 : Call ind. to push button 1.
- I2 : Call ind. to push button 2.
- 10 : Audio output communication.
- 5 : Audio input communication.
- P1 : Input signal lock release.
- 3 : Ground.
- CV : "N.O" contact free for lock release.
- CV : "C" contact free for lock release.
- ~2: Input power supply (TF104).
- ~1: Input power supply (TF104).

**P**ush buttons electronic module EL610A description.



- 11 : Call ind. to push button 1.
- 12 : Call ind. to push button 2.
- 13 : Call ind. to push button 3.
- 14 : Call ind. to push button 4.
- 15 : Call ind. to push button 5.
- 16 : Call ind. to push button 6.
- 17 : Call ind. to push button 7.
- 18 : Call ind. to push button 8.
- 19 : Call ind. to push button 9.
- 110 : Call ind. to push button 10.

## E mbedding box positioning.

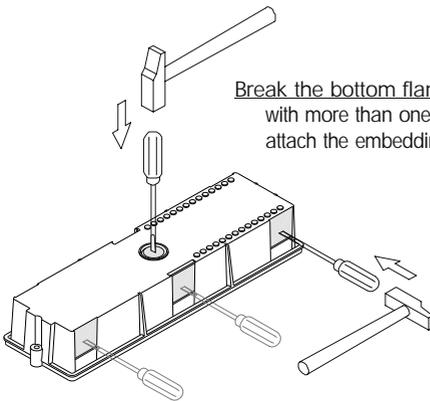


The upper part of the door panel should be placed at 1,65m. height roughly. The hole dimensions will depend on the type of door panel.

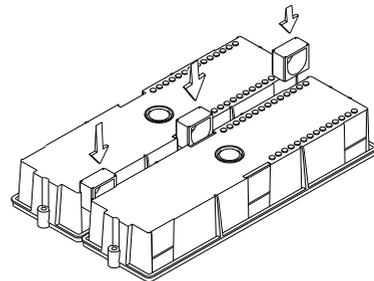
Door panel Model	90CS CEA90C	90C CEV90C	90 CEV90
An	99	99	99 mm.
Al	143	250	328 mm.
P	40	56	56 mm.

The door panel has been designed to be placed under most of the environmental conditions. However it's recommended to take additional cautions like rainproof covers.

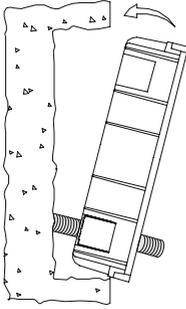
## P reparing the cables entry.



Break the bottom flange to pass the cables through. In case of door panels with more than one embedding box, break the side flanges and attach the embedding boxes using UC junctions.



**P**lace the embedding box.



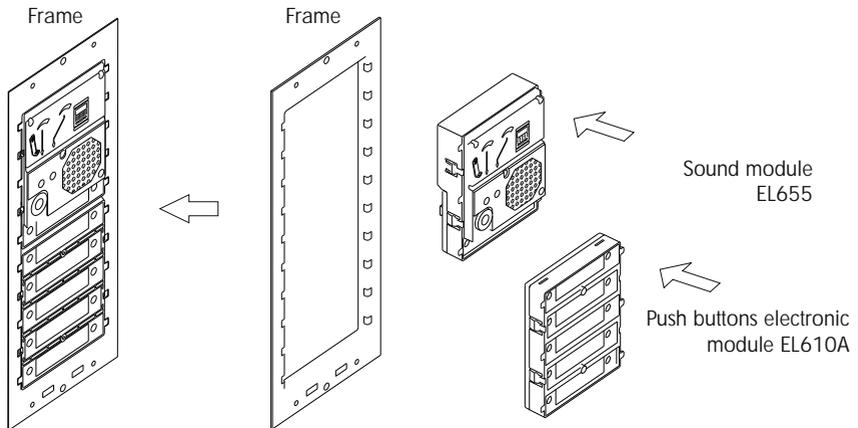
Pass the wiring through the hole made in the bottom part of the embedding box. Level and flush the embedding box. Once the embedding box is placed, remove the protective labels from the attaching door panel holes.

**A**ssemble the electronic modules.

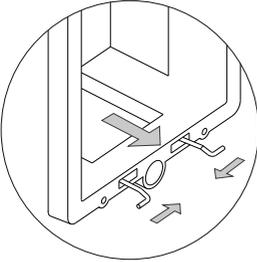
Insert the sound module in the top part of the frame module.

Align the tabs on the sound module in their respective housings of the frame module and later exercise a light pressure until correct placement.

If there is push buttons module repeat the above process, locating under the sound module, as shown in the drawing.

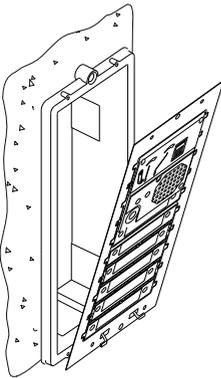
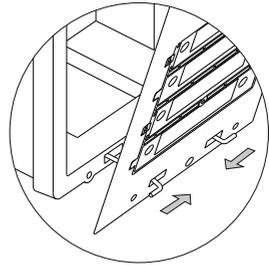


**H**old the frame on the embedding box.



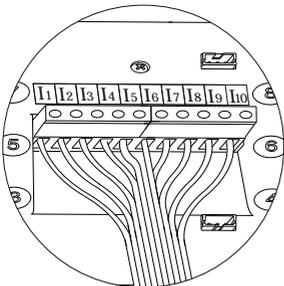
Insert the hinge that is supplied with the product in the embedding box, as shown in the drawing.

To hold the frame on the embedding box, insert the hinge in the housings arranged for this purpose in the frame, as shown in the drawing.



The frame can now be folded horizontally facilitating the connection and adjustments in the sound module and push buttons electronic module.

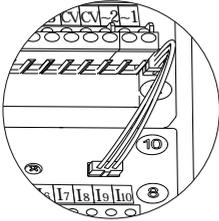
**P**ush buttons wiring.



Insert the call independent wire in the corresponding terminal push button (module EL610A).

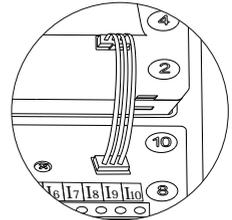
This wire should be connected to "0" telephone terminal if system is electronic type call or "7" telephone terminal with buzzer type call in the assigned dwelling.

**P**lug the Short connection cable.



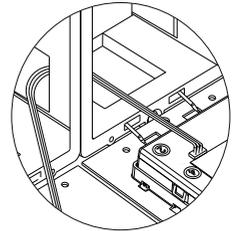
Insert the short connection cable that it is supplied with the product EL610A, in the push buttons connector of the sound module EL655 and the other end of the connection cable in the input connector placed in the top part of the push buttons EL610A module, as shown in the drawing.

Between push buttons modules EL610A of the same embedding box, insert the short connection cable of the output connector of the first push buttons module to the input connector of the second push buttons module, as shown in the drawing.

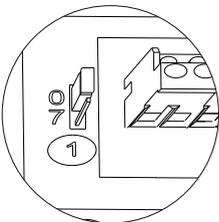


**P**lug the connection cable RAP-610A.

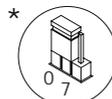
Use the connection cable RAP-610A, for the connection of 2 push buttons modules EL610A of different embedding boxes. Insert the connection cable in the output connector of the last module EL610A of the first embedding box and the other end of the connection cable in the input connector of the first push buttons module EL610A placed in the top part of the second embedding box, as shown in the drawing.



**C**all type selection.



The sound module EL655, have a jumper placed on the back side and on the left side of the terminal connector. This jumper allows to select between two different call types: electronic call "0" (factory default) or buzzer call "7".



\* Electronic call

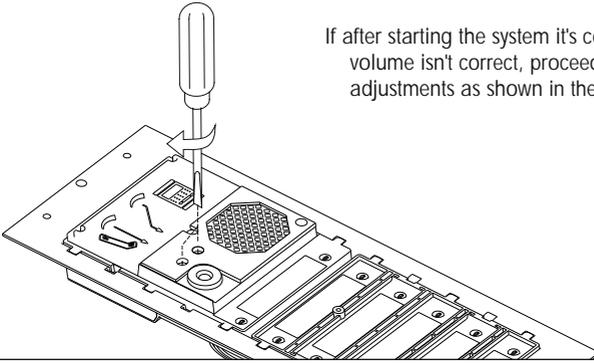


Buzzer call

\* Factory default

## F

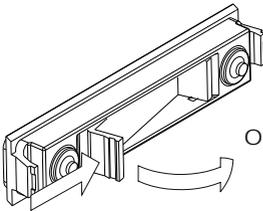
inal adjustments.



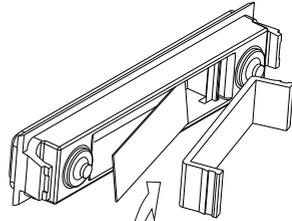
If after starting the system it's considered that the audio volume isn't correct, proceed with the necessary adjustments as shown in the drawing.

## P

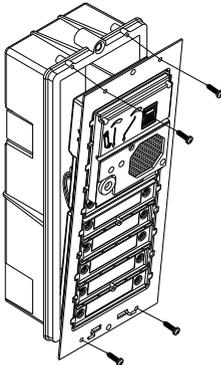
lace the nameplate labels.



Open the label holder.



Place the label and close.



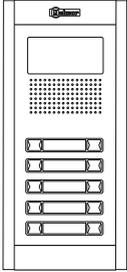
## C

lose the frame.

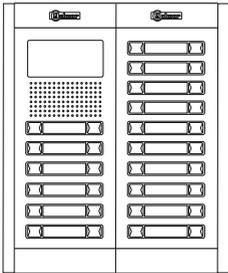
Once finished the works of wiring, configuration and final adjustments, fix the frame in the embedding box with the supplied screws.

## D

oor panel assembly.



In assemblies of a single door panel, it is ready from factory to be mounted.



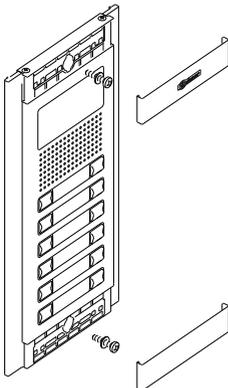
If the door panel to installing is of more than one module it will be necessary make some adjustments to join a door panel with other one.

### IMPORTANT:

To make these adjustments of joining several door panels, see the document that is supplied with the door panel and follow the steps that are described in the section " Mechanical assembly for double door panel" and once finished the adjustments stick the adhesive gasket (that is supplied with the push buttons module) in the rod of joining modules.

## C

lose the door panel.

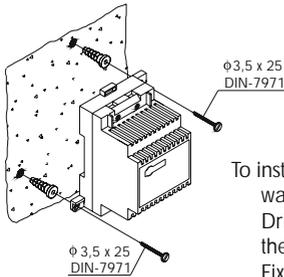


Fix the door panel by using the supplied screws.

Finish the door panel assembly by placing the closing heads, put the head on one side and then make a slight pressure on the other end, to its correct placement.

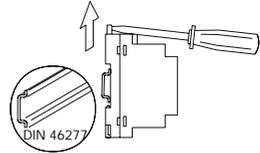
### Installing the TF-104 transformer.

Install the transformer in a dry and protected place without risk of drip or water projections.  
 To avoid an electrical shock, neither remove the primary protection cover nor handle the connected wire in the terminals.  
 The installation and handling of these equipments must be performed by authorised personnel and without the power connected.  
 To avoid damage, the transformer has to be firmly fixed.



It's recommended to protect the transformer by using a thermo-magnetic circuit breaker.

To install the transformer directly on the wall, insert the fixing flanges.  
 Drill two holes of  $\phi 6\text{mm}$ . and insert the wallplugs.  
 Fix the transformer with the specified screws.



The transformer can be installed on a DIN guide (3 units) simply pressing it.

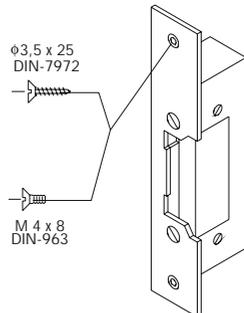
To disassemble the transformer from the DIN guide, use a plain screwdriver to lever the flange as shown on the picture.

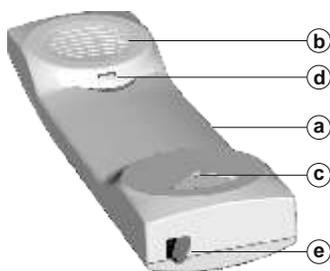
Replace the protection cover once the input terminals have been wired.

## LOCK RELEASE INSTALLATION

### Lock release installation.

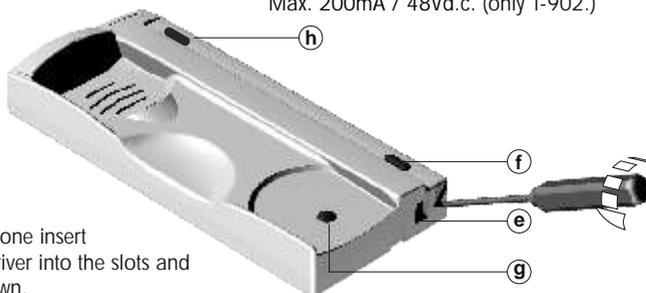
If the lock release will be installed in a metal door, use a  $\phi 3,5\text{mm}$ . drill and tap the hole. In case of wood door, use a  $\phi 3\text{mm}$ . drill.





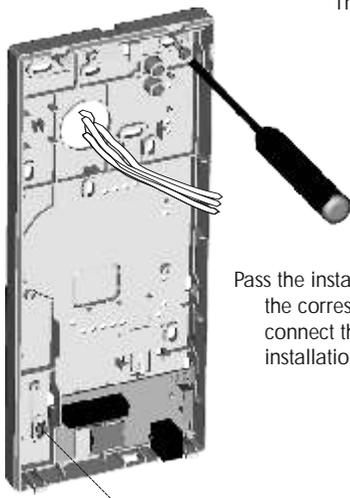
**D**escription of the T-900, T-902, T-900VD, T-910 and T-910R telephones.

- a. Telephone handset.
- b. Speaker grille.
- c. Microphone hole.
- d. Subjection hole.
- e. Telephone cord connectors.
- f. Door release push button.
- g. Hook switch.
- h. Contact free additional push button.  
Max. 200mA / 48Vd.c. (only T-902.)



To open the telephone insert a plain screwdriver into the slots and rotate it as shown.

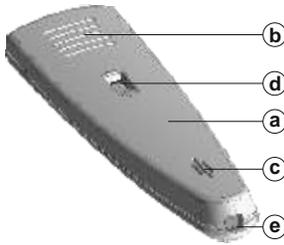
Avoid to place the telephone near to heating sources, in dusty locations or smoky environments.  
The telephone can be fixed using an electrical embedding box or directly on the wall, as shown on the picture.  
If the telephone will be installed directly over the wall, drill two holes of  $\varnothing 6\text{mm}$ . on the specified positions, using 6mm. wallplugs and  $\varnothing 3,5 \times 25\text{mm}$ . screws.



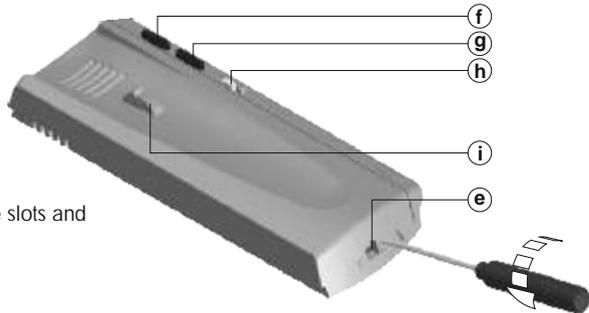
Pass the installation wires through the corresponding hole and connect them as shown on the installation diagrams.

Close the telephone as shown on the picture.  
Once the telephone is closed, connect the handset using the telephone cord and put it on the cradle.

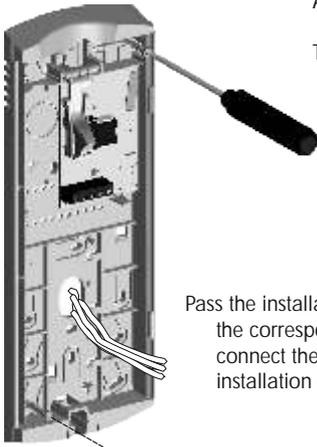




- D**escription of the T-700, T-712VD and T-710R telephones.
- a. Telephone handset.
  - b. Speaker grille.
  - c. Microphone hole.
  - d. Subjection hole.
  - e. Telephone cord connectors.
  - f. Door release push button.
  - g. Contact free additional push button.
  - Max. 200mA / 48Vd.c. (only T-712VD).
  - h. Call volume regulator.
  - (only T-712VD with electronic call).
  - i. Hook switch.



To open the telephone insert a plain screwdriver into the slots and rotate it as shown.



Avoid to place the telephone near to heating sources, in dusty locations or smoky environments.

The telephone can be fixed using an electrical embedding box or directly on the wall, as shown on the picture. If the telephone will be installed directly over the wall, drill two holes of  $\varnothing 6\text{mm}$ . on the specified positions, using 6mm. wallplugs and  $\varnothing 3,5 \times 25\text{mm}$ . screws.

Pass the installation wires through the corresponding hole and connect them as shown on the installation diagrams.

Close the telephone as shown on the picture.

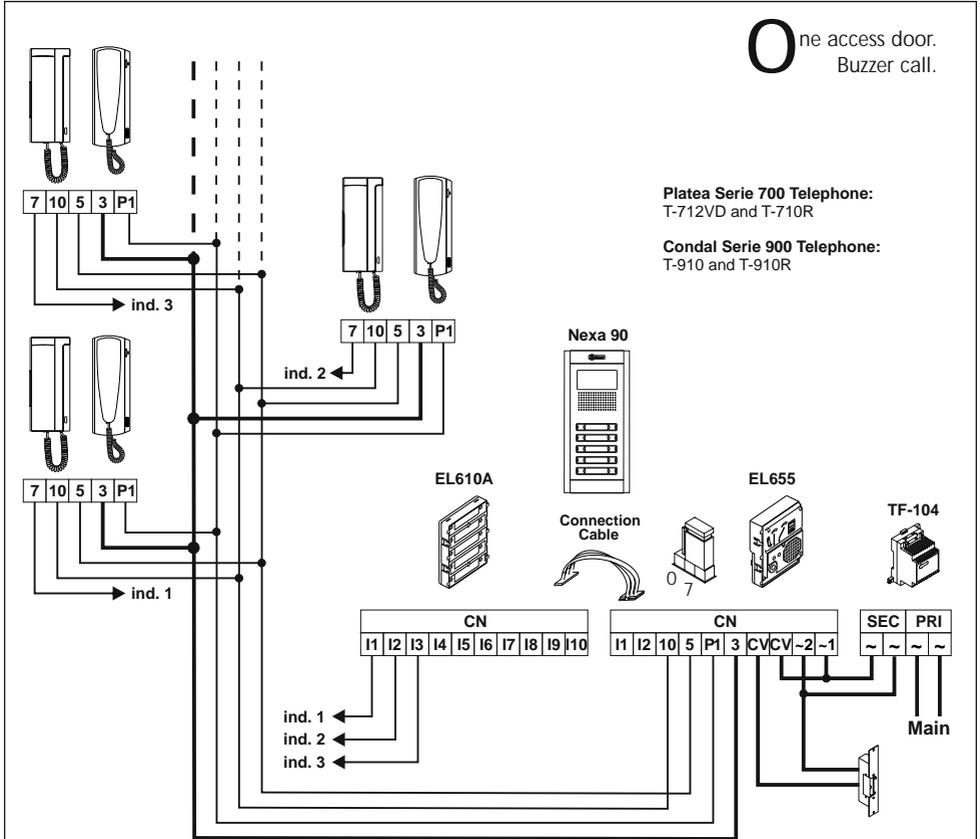
Once the telephone is closed, connect the handset using the telephone cord and put it on the cradle.



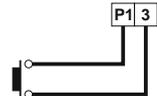
One access door.  
Buzzer call.

**Platea Serie 700 Telephone:**  
T-712VD and T-710R

**Condal Serie 900 Telephone:**  
T-910 and T-910R



The lock release can be activated at any moment by using an external push button, that must be connected between '3' and 'P1' terminals of the sound module. This function will allow to exit from the building being not necessary the use of a key.



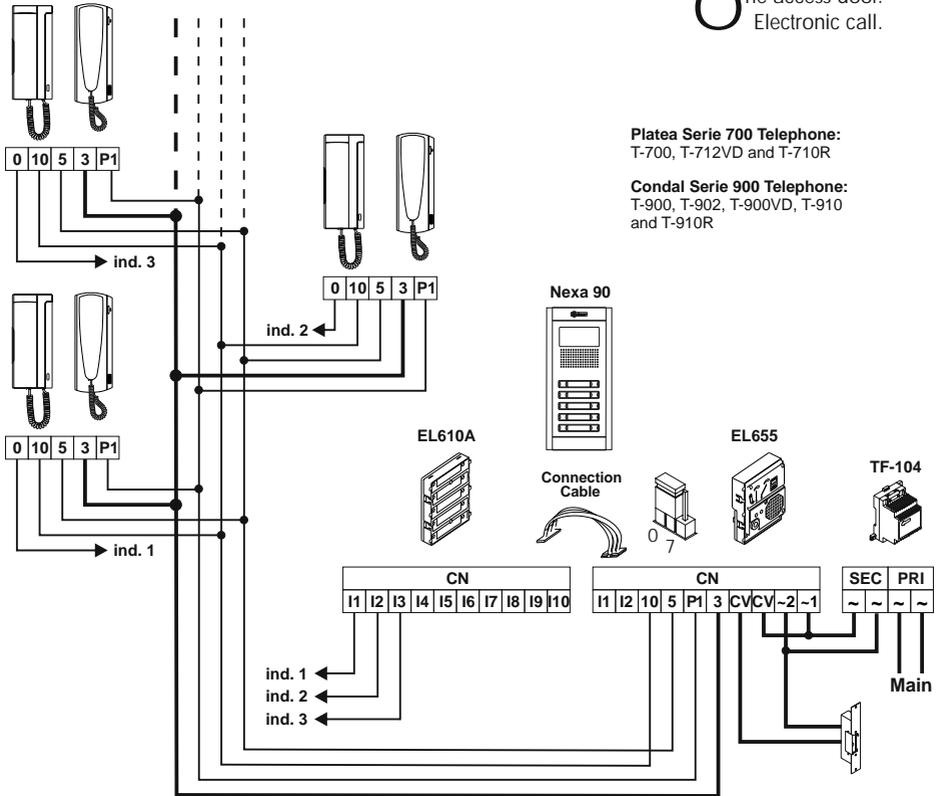
Terminal	Sections chart			
	100m.	150m.	200m.	300m.
5, 10, P1	0,25mm <sup>2</sup>	0,25mm <sup>2</sup>	0,25mm <sup>2</sup>	0,50mm <sup>2</sup>
3, 7, ind	0,50mm <sup>2</sup>	0,50mm <sup>2</sup>	0,50mm <sup>2</sup>	1,50mm <sup>2</sup>
~1, ~2	1,50mm <sup>2</sup>	2,50mm <sup>2</sup>	-----	-----
CV	1,50mm <sup>2</sup>	2,50mm <sup>2</sup>	2,50mm <sup>2</sup>	-----

For longer distances than the specified, contact with your distributor.

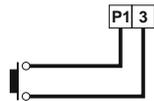
 ne access door.  
Electronic call.

**Platea Serie 700 Telephone:**  
T-700, T-712VD and T-710R

**Condal Serie 900 Telephone:**  
T-900, T-902, T-900VD, T-910  
and T-910R



The lock release can be activated at any moment by using an external push button, that must be connected between '3' and 'P1' terminals of the sound module. This function will allow to exit from the building being not necessary the use of a key.



Terminal	Sections chart		
	100m.	200m.	300m.
5, 10, P1	0,25mm <sup>2</sup>	0,25mm <sup>2</sup>	0,50mm <sup>2</sup>
3, 0, ind	0,50mm <sup>2</sup>	0,50mm <sup>2</sup>	1,50mm <sup>2</sup>
~1, ~2, CV	1,50mm <sup>2</sup>	2,50mm <sup>2</sup>	-----

For longer distances than the specified, contact with your distributor.

## C onversion table.

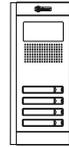
### Replacement Serie 90 "4+N" to Nexa 90 "4+N" (conversion table):

Below the connection terminals are detailed to replace an installation serie 90 "4+N" to Nexa 90 "4+N".

**Serie-90**



**Nexa 90**



#### Connection

Terminal:	← Connect to →
Terminal: -	← Connect to →
Terminal:	← Connect to →
Terminal: <b>P</b>	← Connect to →
INDEP. N1,2,3...	← Connect to →

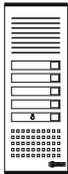
#### Connection

Terminal: <b>10</b>
Terminal: <b>3</b>
Terminal: <b>5</b>
Terminal: <b>P1</b>
I1,I2,I3...

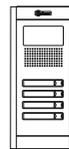
### Replacement Serie 60 "4+N" to Nexa 60 "4+N" (conversion table):

Below the connection terminals are detailed to replace an installation serie 60 "4+N" to Nexa 60 "4+N".

**Serie 60**



**Nexa 60**



#### Connection

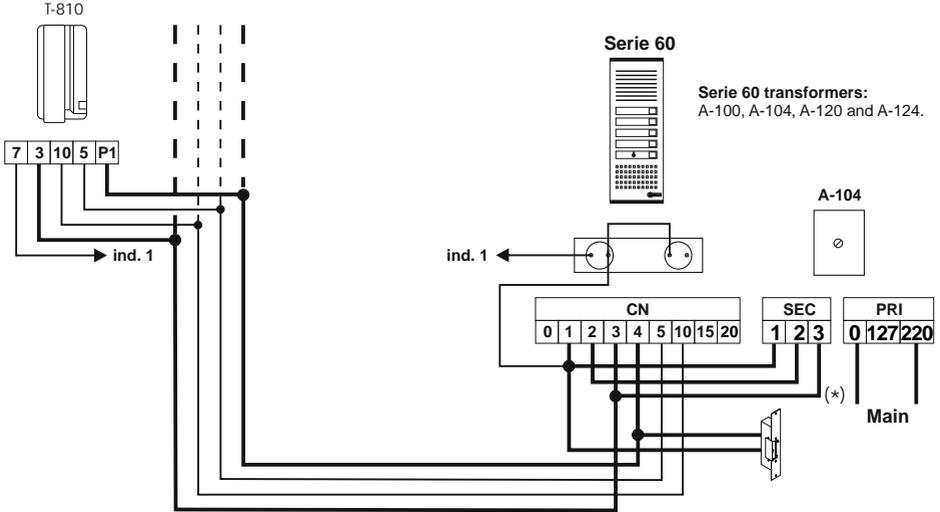
Terminal: <b>10</b>	← Connect to →
Terminal: <b>5</b>	← Connect to →
Terminal: <b>4</b>	← Connect to →
Terminal: <b>3</b>	← Connect to →
INDEP. N1,2,3...	← Connect to →

#### Connection

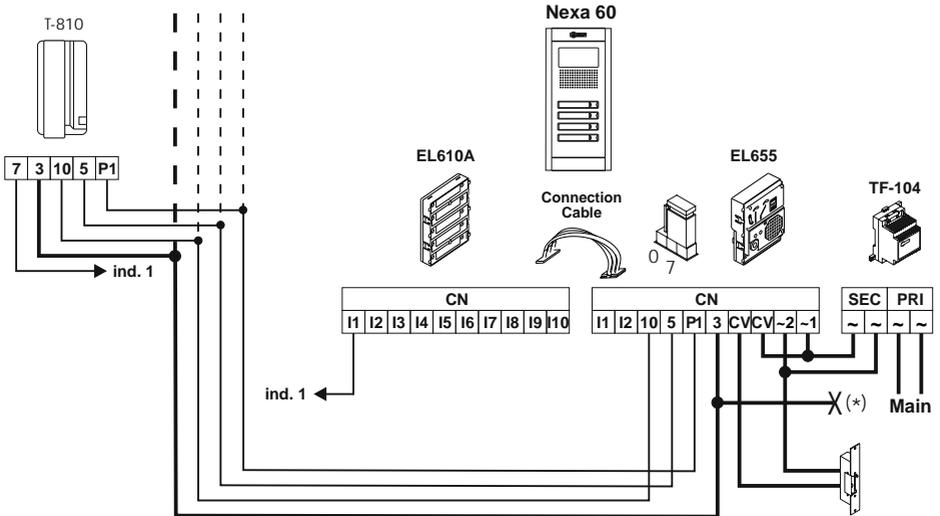
Terminal: <b>10</b>
Terminal: <b>5</b>
Terminal: <b>P1</b>
Terminal: <b>3</b>
I1,I2,I3...

Replacement Serie 60 '4+n'  
to Nexa 60 '4+n'.

Installation Serie 60 '4+n'.



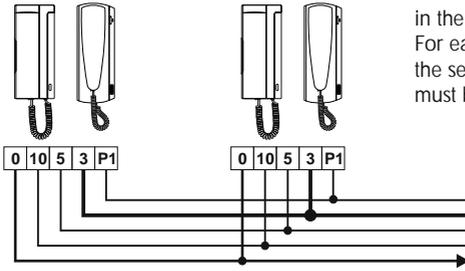
Replacement to installation Nexa 60 '4+n'.



Note: To realize the Serie 60 door panel replacement to Nexa 60, follow the steps described in the manual 'Nexa 60 replacement' that it is supplied with door panel (aluminium modules).

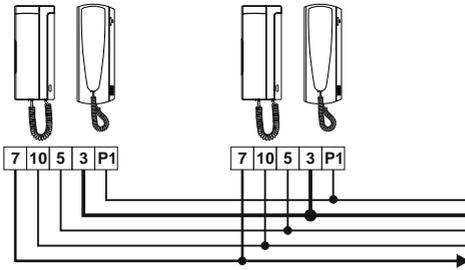
(\*) Important: If the installation transformer is replaced with TF-104, the wire connected to terminal 3 must be annulled from replaced transformer.

## Parallel telephones installation.



The maximum number of telephones placed in the same apartment is three. For each telephone placed in parallel the section corresponding to the call wire must be doubled.

Electronic call.



Buzzer call.

# TROUBLESHOOTING HINTS

- ☞ Nothing operates.
  - ☞ Check the output transformer voltage between SEC terminals: it should have 12 to 17V a.c. If not, disconnect the transformer from the installation and measure again. If it's correct now, it means there is a short circuit in the installation. Disconnect the transformer from mains and check the installation.
- ☞ Inappropriate audio level.
  - ☞ Adjust the level volumes as shown on page 50. In case of feedback, reduce the audio levels until feedback fade out.
- ☞ Door open function no operates.
  - ☞ Disconnect the lock release from the sound module EL655 and short-circuit terminals '3' and 'P1': at that moment the output voltage between terminals 'CV' and '~ 2' should be 12V a.c. If it's so check the lock release, its wiring and the wiring of the terminal 'P1' from the sound module to the telephones. If these tests don't solve the problem, replace the sound module.
- ☞ No telephones receive the call or acknowledgement call signal is not reproduced.
  - ☞ Check that connection cable between modules are connected in the push buttons connector (page 49).
  - ☞ On systems with EL655 sound modules, check that the call type selection jumper is placed in the correct position. (page 49).

A large rectangular area with a dotted line pattern, intended for writing notes. The pattern consists of horizontal rows of small dots, spaced evenly down the page. The entire area is enclosed in a thin black border.

A large rectangular area containing 25 horizontal dotted lines for writing notes.

A large rectangular area with a thin black border, containing 25 horizontal dotted lines for writing notes.

Este producto es conforme con las disposiciones de las Directivas Europeas aplicables respecto a la Seguridad eléctrica 2006/95/CEE y la Compatibilidad Electromagnética 2004/108/CEE, así como con la ampliación en la Directiva del Mercado CE 93/68/CEE.

*This product meets the essentials requirements of applicable European Directives regarding Electrical Safety 2006/95/ECC, Electromagnetic Compatibility 2004/108/ECC, and as amended for CE Marking 93/68/ECC.*



**NOTA:** El funcionamiento de este equipo está sujeto a las siguientes condiciones:

(1) Este dispositivo no puede provocar interferencias dañinas, y (2) debe aceptar cualquier interferencia recibida, incluyendo las que pueden provocar un funcionamiento no deseado.

**NOTE:** *Operation is subject to the following conditions:*

*(1) This device may not cause harmful interference, and (2) this device must accept any received interference, including the ones that may cause undesired operation.*



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