Ek **EKSELANS** BY ITS

INSTALLER'S MANUAL

EK
VIDEO INTERCOM

2-wire video door entry system with Mifare RFID access control system

V1.6

INDEX

1 - Product Description

EK Video Door Entry is a non-polarized two-wire video door entry solution for community buildings.

1.2 General characteristics

· Two wires not polarized system.

· Stainless steel outer plate with high-quality color image camera with auto-detection system for lack of brightness.

· Electronic opening.

· Compatible with external pushbutton.

· Monochrome display with auto-brightness system when detecting darkness.

· Adjust the monitor's call volume.

· System expandable to four outdoor panels with the possibility of installing a total of 32 identified monitors or up to 64 with secondary monitors in the same home (Maximum 3 per home).

· Monitoring function. It is possible to observe the street without the need for a prior call (MON43V/MON43O).

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2 – Elements of the EK VIDEO INTERCOM

2.1 Entrance panel PCD-E / PCD-E-B

Entrance panels with high image quality camera and dim self-detection system. They have a numeric keypad for dialing the desired home with different programming modes and an access control system using Mifare RFID. By means of different accessories, it can be installed recessed in the wall, on the surface or provided with a protective visor.

2.2 PFA 2420 Power Supply

Power supply with 2-wire BUS system. In addition to providing the necessary current for the system centrally, it is the intercommunication module between the PCD-E board and the DPL-4 /DPL-4F taps.

2.3 DPL-4 / DPL-4F Shunts

DPL-4 / DPL-4F Shunts, they have 4 outputs for monitors / intercoms with the possibility of cascading up to a maximum of 32 independent monitors. The last shunt must be the DPL-4F reference to close the line properly.

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2.4 Monitores MON 43V / 43W e Interfonos UAD

MON43 monitor with high-quality 4.3" color display. UAD intercom for audio communication. Both references are hands-free and can be opened without the need for prior dialing. The MON 43 has the possibility of external viewing of the video intercom from the same panel of the monitor. With the MON 43W monitor you can answer your calls from your smartphone, open the door and view unanswered calls when you were away.

MON 43V

MON 43W

UAD

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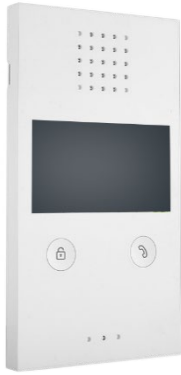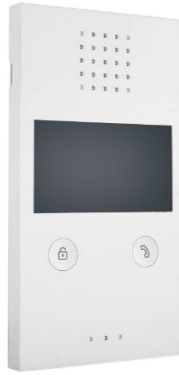
3 – Electrical diagram

3.1. Connection diagram with a DPL-4F shunt
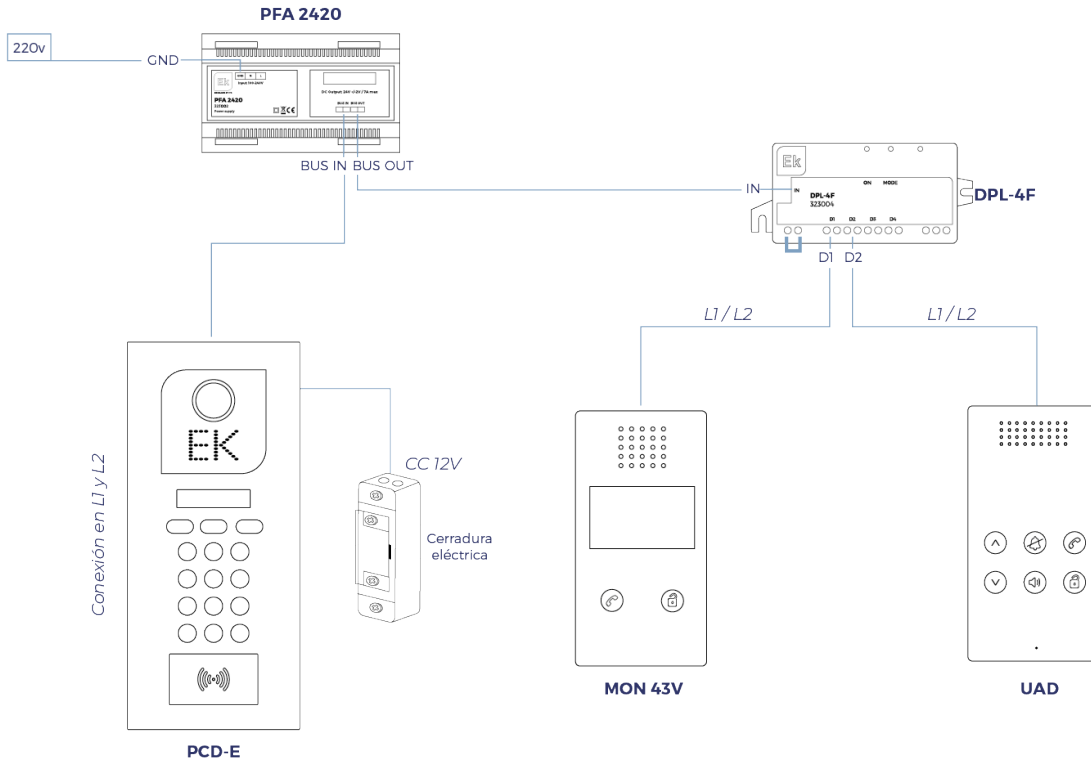
To make a connection to the DPL-4F shunt, make the connection as indicated in the schematic. **For the same home you can make a cascade connection between monitors/intercoms (maximum 3 per home), it is recommended to configure it with the same identifier per home.**

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3.2. Cascade wiring scheme with DPL-4 and DPL-4F taps for up to 64 intercoms per installation
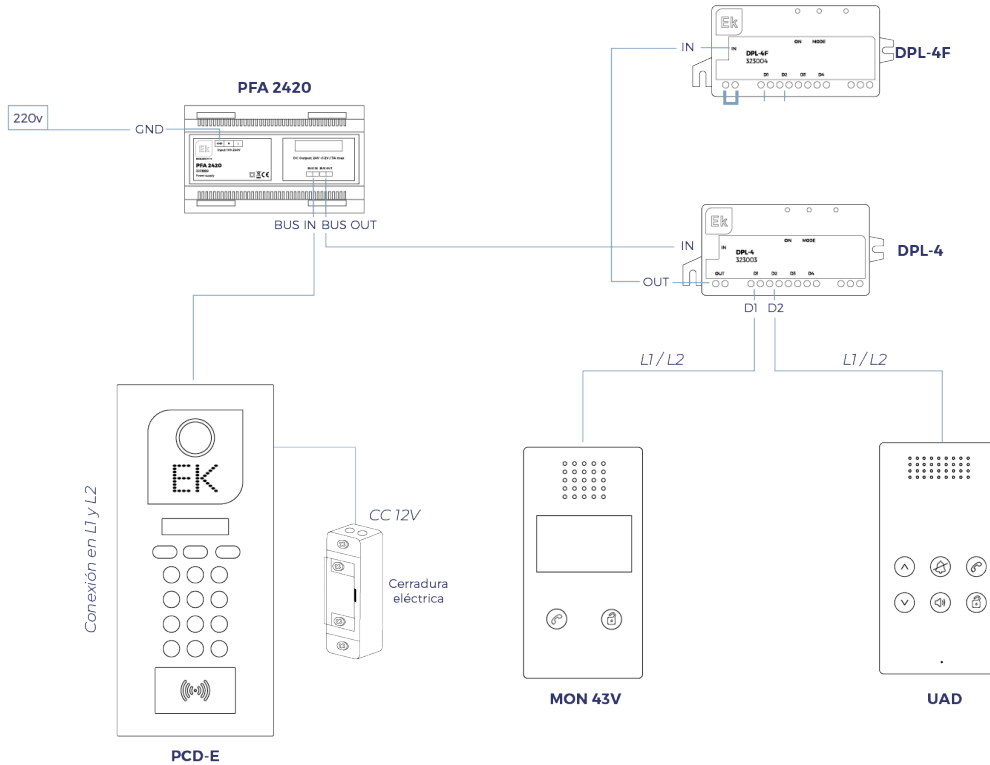
If you want to make a connection with more than four intercoms, you must make a cascade connection between the DPL-4 modules by connecting them as indicated in the diagram, and use the DPL-4F reference as the final module. The installation has a maximum of 64 connected intercoms/video intercoms, 32 with identification and the rest as a secondary intercom for homes with several floors (if the installation is carried out in a cascade between intercoms in the same house (**maximum 3 per household**), the last intercom must be configured as the end of the line (Step 7). **For the same home, you can make a cascade connection between monitors/intercoms (it is recommended to configure it with the same identifier).**

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3.3 Cascade wiring scheme without DPL-4 and DPL-4F taps for a maximum of 12 intercoms per downspout with a total of 24 total per installation
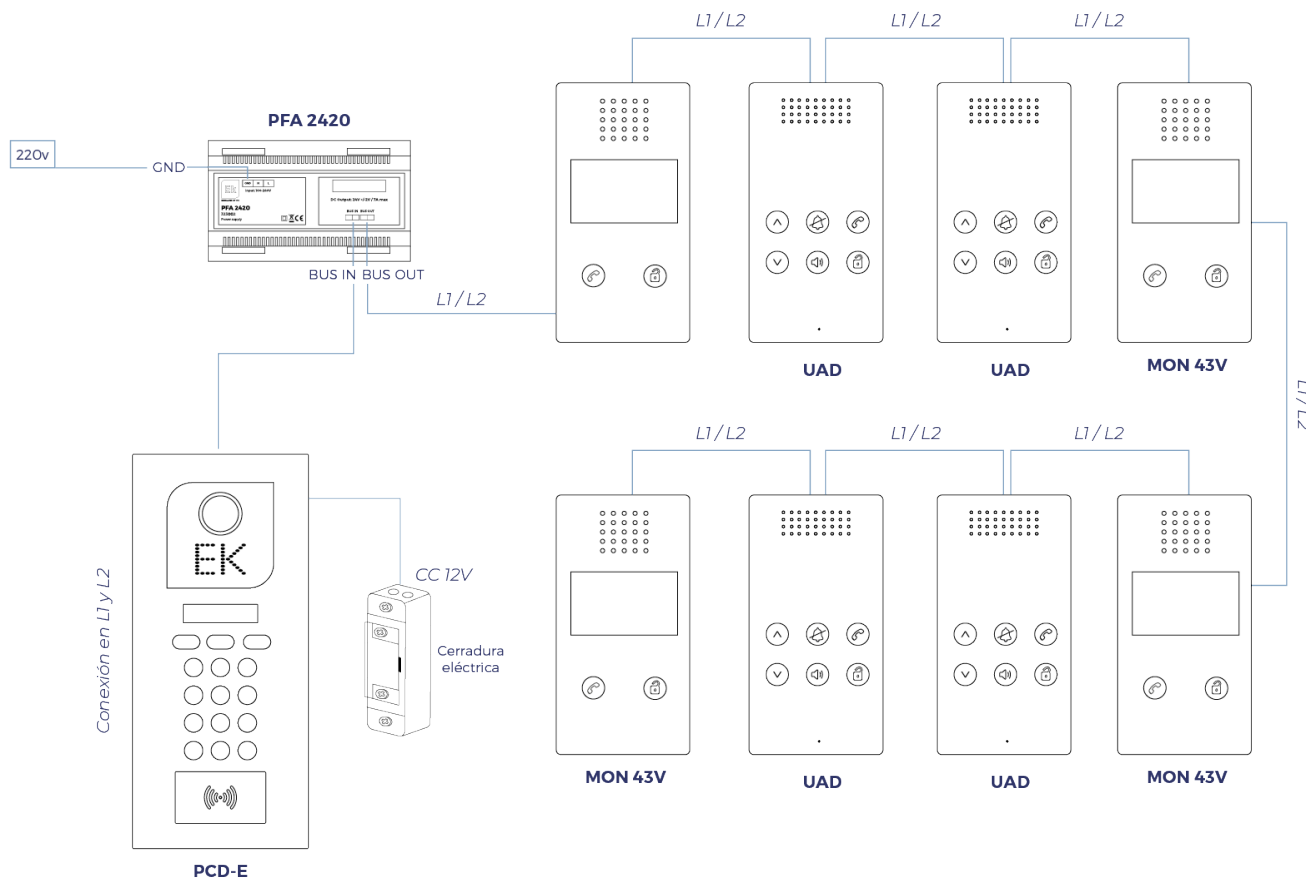
It has a cascading connection without DPL-4 and DPL-4F taps with a maximum of 12 connections to each other per downspout, with a maximum of 24 intercoms. **The last intercom of the downspout must have the dip switch as the end of the line (Step 7).**

4 – Configuration

4.1 Master Card Access

To access the configuration mode, it is necessary to have a Master card that is inside the PCD-E box previously configured. All you need to do is swipe it through the Mifare card reader and it will activate your access.

If you do not have the Master card, you must add a Master card again in the configuration menu in the "Register Master Card" section. (To access without the Master card, go to step 3.2)

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4.2 Plate bridge access

To access the configuration, you need to previously disconnect the power supply to the PCD-E video intercom and maintain a bridge between the OP and GND outputs. Once the bridge is done, reconnect the power to the device.


Once you power the video doorbell, it will start in Configuration mode and indicating the version of the device, you can remove the bridge.

To return to normal mode, press the Exit or key ✕ .

4.3 – Add registration card

To add a new registration card, go to the option in the settings menu "Register registration cards" and click Enter. Once inside, the system will ask you to swipe the card you want to configure for registration card.
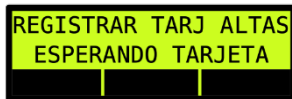
Once the card is swiped, a beep will sound and a confirmation of the registered card will appear on the screen

IMPORTANT!! Only one registration card can be registered. Once you register a registration card, if you register another card again, the previous card will be automatically deleted. **If you have two PCD-E outer boards, you must do the same process independently.**

4.4 Add Leave Card

To add a new leave card, go to the option in the settings menu "Register leave cards" and press Enter. Once inside, the system will ask you to swipe the card you want to configure for the cancellation card.

Once the card is swiped, a beep will sound and a confirmation of the registered card will appear on the screen

IMPORTANT!! Only one unsubscribe card can be registered. Once you register a leave card, if you re-register another card, the old card will be automatically deleted. **If you have two PCD-E outer boards, you must do the same process independently.**

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4.5 Adding Access Cards

There are two ways to add access cards, by registration card or by monitor identification.

4.5.1 Adding Access Cards Using Monitor ID

If you want to add access cards using monitor identification, go to the Outer Plate (PCD-E) settings and select "Add Card". Next, type the ID of the monitor you want to associate the card with and press OK. It will ask you to swipe a card for registration, confirm with a beep and a message on the screen with the card ID number and the associated monitor ID.

4.5.2 Adding Access Cards by Registration Card

To add access cards you will need a previously registered registration card (Step 3.3). Once inside the settings menu, you will only have to swipe the card and the following will appear on the screen to confirm that you are in access card registration mode.

```
AÑADIR TARJETA
ESPERANDO TARJETA
```
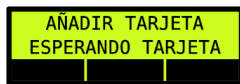
When you swipe the card, it will notify you by an audible beep that it has been correctly added and the card code will appear on the screen, indicating that it has been saved correctly.

```
CODIGO:
UID:71DC9108  GUARD
```
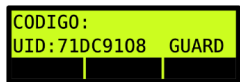
If the card is already registered and not supported, it will indicate it by means of an audible warning of three beeps and show you the following on the screen.

```
(X)     TARJETA
```

To exit the "Add Card" mode, swipe the registration card again.

If you have two PCD-E outer boards, you must do the same process independently.

4.6 Erase Access Cards

If you want to delete the access cards, you will need to have them. Once you have them, all you have to do is go to the settings menu and swipe the unsubscribe card. Once you pass it, the device will switch to read mode, being able to pass the cards you want to cancel.

```
BORRAR TARJETA
ESPERANDO TARJETA
```

Each time you swipe a card, the device will produce an audible warning informing you that the card has been removed from the registry. To exit the "Clear Card" mode, swipe the unsubscribe card again. **If you have two PCD-E outer boards, you must do the same process independently.**

4.7 Language settings

To change the language, go to the settings menu and select "Language" and press Enter. Once inside, select the desired language.

```
IDIOMA
INGLES
```

4.8 Importing Data from an SD Card

To import your SD card data, follow the steps below:

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Insert the SD card previously before accessing the configuration menu, if the initialization has been successful a message will appear on the screen "Initializing card..." then "SD Card OK". Once inside, click on the "List" button and select the option "IMPORT FROM SD" and click ✓Once the configuration has been imported, a warning will appear on the screen as the files have been imported successfully. **If initialization is not successful, remove power to the PCD-E board and reconnect it.**

4.9 Exporting the data to an SD card

If you want to make a copy of the existing PCD-E configuration to an SD card, you first need to disconnect the voltage from the PCD-E board, insert the SD card, and power the device again. Next, go to the "Export to SD" section that you will find within the configuration options and press ✓. Once the data has been exported on-screen, a successful export prompt will appear.

Next, a folder will be created inside the SD card called "Video Door". Inside you'll find three files: Config_Table.csv, Floor_Table.csv, and UID_Table.csv.

Nombre

- Config_Table
- Floor_Table
- UID_Table

Config_Table: Configuration of the PCD-E video intercom (Languages, Door Opener Timer, etc.) (+Info: Step 9.1).

Floor_Table: Here you will find the table of Owners' Name, Address, Calling Code and Doorman's Code (+Info: Step 9.2)

UID_Table: Access Card Table (+Info: Step 9.3)

4.10 Add additional outer plate

If you want to add more than one exterior plate to your installation, you must identify the PCD-E plates by means of the license plate ID, for this go to the street panels (PCD-E) and within the configuration go to the "Configuration options" section and "Street plate ID" and insert the ID you want.

Example: First Board ID: 1 and Second Board ID: 2

4.11 Add Extra Camera

The EK VIDEO INTERCOM system has an option to add analogue cameras to view the environment through its MON 43V monitor.

Additional camera connection on PCD-E board:

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It is recommended to power the additional camera via its transformer. The PCD-E board does not have a direct outlet to power the camera.

IMPORTANT!! In order for the system to detect that an additional camera has been added, it must be pre-configured on the PCD-E board. Go into the board settings, go to Configuration Options, Additional Camera, and change the option to **YES**.

5 – Connecting the Door Opener

Within the connection area of the PCD-E entrance panel, you will find bridges with various configuration modes.

Bridge between 1, 2: Direct output in 12v DC without protection by resistors.

Bridge between 2, 3: Direct output in 12v DC with protection by resistors. (**Recommended**)

No bridge: Tension-free connection (dry contact).

5.1 Connecting the door opener by DC 12v

For connection to 12v c/c, a direct output is available in the PCD-E board connection at the NO/GND outlets for open contact and NC/GND for closed contact.

OPEN CONTACT CLOSED CONTACT

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5.2 Connecting the Door Opener for Relay Output (Dry Contact)

If you want to have a voltage-free contact, you have a configuration for it. Connect the wires to the NO/COM outlet for open contact or NC/COM for closed contact. **To make this connection, remove the jumper.** (Step 4)
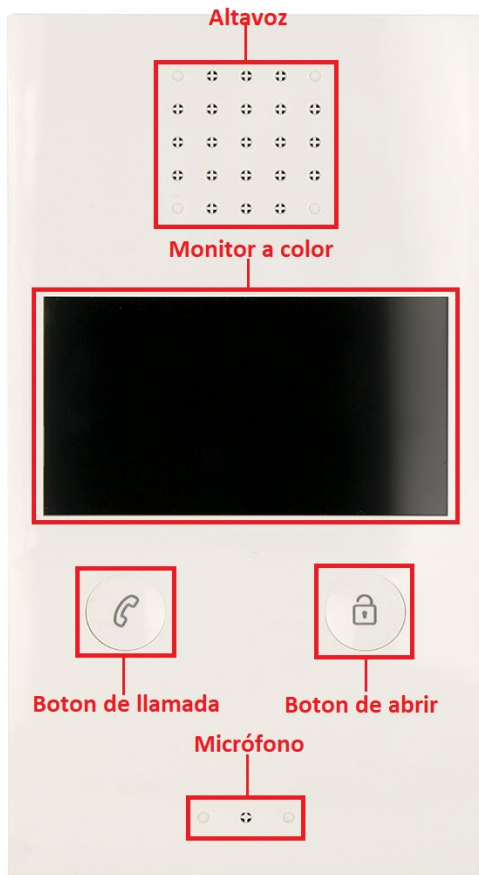

CONTACT CLOSED CONTACT OPEN CONTACT

5.3 Auxiliary Door Opener Switch

If a manual switch for the door opener is required to be installed, you can connect it using the settings below.

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6 – Monitor MON 43V

6.1 MON 43V Monitor Configuration

6.1.1 Change Ringtone

Press and hold the "call button" until you hear a long beep, the current ringtone will sound.

There are 9 ringtones to choose from, press the "open button" to change the ringtone you want. To confirm the selected ringtone, press the "call button" again to save the settings and exit.

6.1.2 How to Display Additional Camera.

If there is an additional camera, during an incoming call, press and hold the "call button" to see the view of the additional camera.

6.1.3 Visualize and interact with additional outer boards and cameras.

If you want to interact with the outer panels and/or analog cameras in your installation, you have a mode. Then press the "call button" once, it will activate the display of the outer board, if you press again a long press, it will switch to the next outer board (PCD-E) and/or the camera in your installation. **First of all, you need to set up the outer plates and additional cameras.**

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6.1.4 Configure Outer Plate Camera and Additional Cameras.

Press and hold the "call and open" buttons until you hear a long beep. Start setting the status of the multi-door station and additional camera. Tap as many times as the amount of code specific to the status of the door.

Examples:

There are 2 outer plates and 1 additional cameras, the specific code would be **4**.

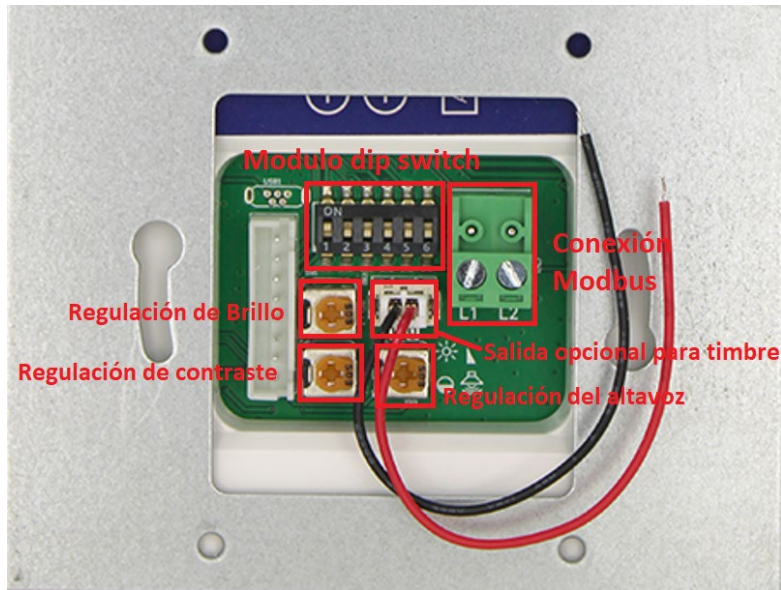**Step 1**: Press and hold the "call and open" buttons until a beep sounds

Step 2: Press the "call button" 4 times to prompt code 4

To confirm the steps click again "open button"

There are 2 outer plates and no additional camera, the specific code would be **3.**

Step 1: Press and hold the "call and open" buttons until a beep sounds

Step 2: Press the "call button" 3 times to prompt code 3

To confirm the steps click again "open button"

6.1.5 Table of Configuration Codes for Outer Plates and Additional Cameras.

Configuration	Code	Configuration	Code
1 Outer plate 0 Cameras	Code=1	3 Outer plates 2 Cameras	Code=8
1 Outer plate 1 Cameras	Code=2	3 Outer plates 3 Cameras	Code=9
2 Outer plates 0 Cameras	Code=3	4 Outer Plates 0 Cameras	Code=10
2 Outer plates 1 Cameras	Code=4	4 Outer Plates 1 Cameras	Code=11
2 Outer plates 2 Cameras	Code=5	4 Outer Plates 2 Cameras	Code=12
3 Outer plates 0 Cameras	Code=6	4 Outer Plates 3 Cameras	Code=13
3 Outer plates 1 Cameras	Code=7	4 Outer Plates 4 Cameras	Code=14

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6.2 MON 43V Monitor Connection

7 – UAD Intercom
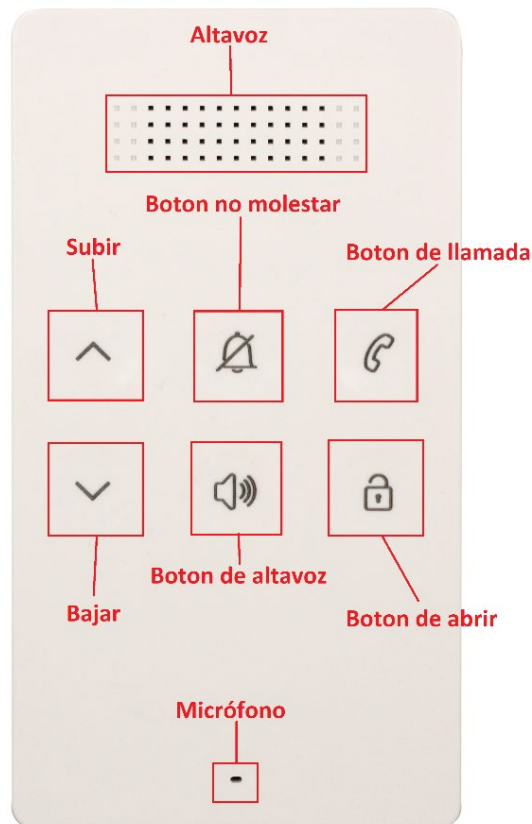
Door Opening Function:

When the visitor calls from the outside plaque, the UAD will sound. Press the call button to talk to the visitor, then to open the door press the open button.

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Doorbell call button (optional):

An additional doorbell call button can be connected to the UAD, so that visitors can ring the doorbell again in front of the user's apartment. When the button is pressed, the UAD intercom will emit the ringtone.

7.1 UAD Intercom Configuration

7.1.1 Change Ringtone

Press the "speaker button" once until you hear the music, then press up or down to select your preferred ringtone. Press the "speaker button" again to save and exit. There are 16 optional ringtones.

7.1.2 Volume Configuration

Press and hold the speaker button until you hear the ringtone, then you can press up or down to set the volume.

7.1.3 No molestation mode
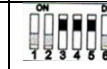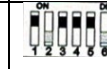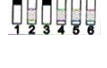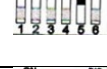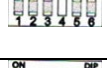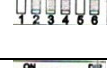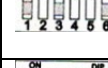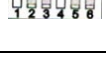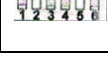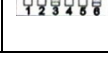
The UAD intercom has a do not disturb mode so that it does not ring on calls if you wish. To do this, you just have to press the do not disturb button and a solid light will turn on in the upper left area indicating that the do not disturb mode is active, to deactivate it press again and the do not disturb mode will be disabled.

7.2 UAD Intercom Connection

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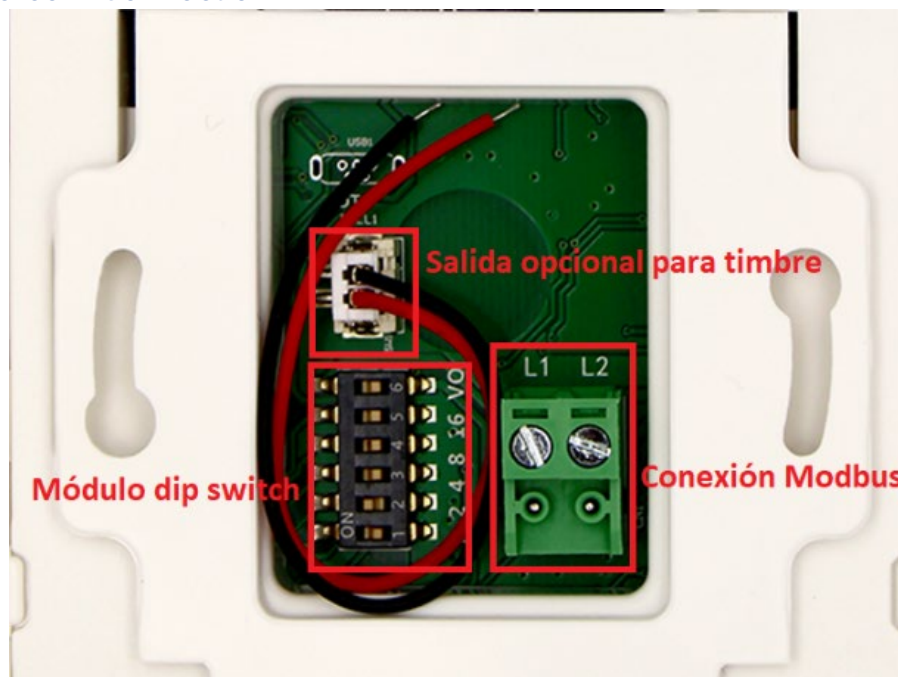
8 – Table of Identification Codes

Each MON 43 monitor or UAD intercom must have an ID configured via the bit code (dip switch on the back). Bits 1 to bit 5 are used to set up intercom identification. (Step 5.2 and 6.2). *Bit-6 is the end-of-line switch, if the monitor is not, set it to OFF, otherwise set it to* **ON**

Bit state	User code	Bit state	User code	Bit state	User code	Bit state	User code
	Code=1		Code=10		Code=19		Code=28
	Code=2		Code=11		Code=20		Code=29
	Code=3		Code=12		Code=21		Code=30
	Code=4		Code=13		Code=22		Code=31
	Code=5		Code=14		Code=23		Code=32
	Code=6		Code=15		Code=24		
	Code=7		Code=16		Code=25		
	Code=8		Code=17		Code=26		
	Code=9		Code=18		Code=27		

9 – Identify intercoms (MON 43V and UAD) on outer board

To identify the monitors to your installation you must add them to the PCD-E board, go to settings and select "Add Monitor". Once inside it will ask you to insert the keypad code that you want to give to the monitor you want to add, Once you add the code it will then ask you for the number of the monitor code that you have previously configured. (To find out the code table, go to step 7.) **If you have two PCD-E outer boards, you must do the same process independently.**

<u>Example:</u>

Keypad code: 1

```
  CODIGO TECLADO
    _ _ _ _ _
            BORRAR
```

Monitor code: 1

To confirm, press the ✓ button on the keyboard. Once the values are inserted, confirm again and a saved data message will appear.

10 - Editing Files Exported to SD Card

10.1 - Config_Table.csv

The information you'll find in the Config_Table.csv file will show you the PCD-E board configuration.

Parameter	Guy	Default	Notes	Value
Outdoor Station ID	Numerical	1	Outer Plate Identification	1-4
Extra Camera	Numerical	0	Number of outdoor cameras	0/1
Unlock Door Time	Numerical	5	Door Unlock Time	1-99
Buzzer	Numerical	1	Buzzer	0/1
Language	Numerical	0-English 1-French 2-English 3-German 4-English 5-Portugues	Languages	0-4
Help Screen Timeout	Numerical	2	Help Screen Time	1-99
System Timeout	Numerical	30	Setup screen timeout	1-99
MCA Card	Hexadecimal	-	Registration card hexadecimal code	-
MCD Card	Hexadecimal	-	Leave card hexadecimal code	-
Master Card	Hexadecimal	-	Master Card	-

10.2 Floor_Table.csv

Within the file Floor_Table.csv collects the information of the registered monitors and their information.

Parameters	Guy	Information	Value
Name	Text	Name of the owner of the apartment	0-20 characters max
Floor	Text	Floor	0-4 characters max
Calling Code	Numerical	Intercom Calling Number	1-4 characters

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Monitor Code	Numerical	Monitor ID Number	1-32

Example table:

Name	Floor	Calling Code	Monitor Code
Miguel Garcia	1A	1	1
Pedro M.F.	2B	2	2

IMPORTANT!!

When modifying the Floor_Table.csv file, the modified text must be separated by "commas". If the characters in the "Name" or "Floor" section are exceeded the character limit, these characters will be deleted and therefore will not appear on the screen. **If the "Floor" section exceeds 4 characters, it is advisable to use the "Name" section.**

Example: Name, Floor, Calling Code, Monitor Code (Miguel Garcia,1A,1,1)
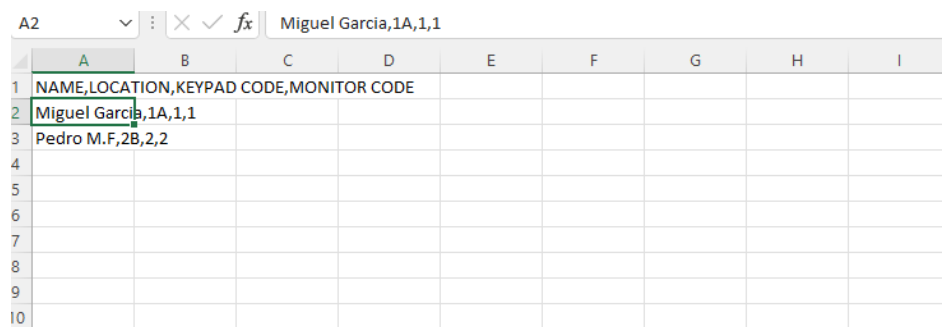
A form is available to generate the file **Floor_Table.csv** by visiting: https://vid.ek.plus.

Once you generate the file, insert it into a folder named "Video Door" and copy it into the SD card that came with your computer. and start importing. (Step 3.8)

10.3 UID_Table.csv

Within this file you will find the list of cards registered with entry access. In the "Index" section, it is associated with the monitor number, this will only appear when the cards have been added manually. If they are added through the registration card, this field will not indicate anything.

Parameters	Guy	Value
UID	Hexadecimal	-
Index	Numerical	-

Example table:

UID	Index
71DC9108	1
8D42C61B	2

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11 – Wiring cross-section and distances.

Cable Section	0.25mm2			0.5mm2			1.5mm2 (troncal soles)		
Maximum Monitors	32	48	64	32	48	64	32	48	64
Maximum distance from street plate to farthest monitor (meters)	125	125	125	200	200	200	250	250	250
Maximum distance from feeder to monitor farthest (meters)	75	50	40	150	100	75	250	250	200

Note: *The maximum distance from the power supply to the entrance plate must be within the range of the limiting distances between the entrance plate, the farthest monitor, and between the power supply to the last monitor.*

12 – Activation of door openers by access code.

To activate the passcode to unlock the door opener using a passcode, it must first be activated. Access the PCD-E board settings, go to the "Configuration Options" and "Door Opener Code" section, and select **YES**. You will then be asked for the access code for the door opener, the code must be at least 4 digits long, and a maximum of 9 digits. When you enter the code on the setup screen, it will be displayed on the screen.

Once in normal mode, to enter the code you have to press the cancel key (x) and a window will appear asking you to enter the access code (only if the code option is activated). When you enter the code, the code will not be displayed when you type it and you will see as many " * " on the screen as there are digits entered.

To validate the code, click " ✓ ". At this point, the code will be checked to see if it is valid. If it is, the door will open and a door opening screen will be displayed, if it is not, a screen will give you an error.

13 – Activation of search by name.

If you want to activate on the main screen, search by name. Go to the settings and go to the "Configuration options" section and select "Search by name" and then select **YES** and press "✓".

14 – General/Call Timer Settings.

14.1 - General Weather

The general time is set by default to 30 seconds. Configurable from the menu (General Settings/General Timer). It is set to limit automatic exit from the settings menu without detecting a press and call termination from the entrance panel to a monitor if the monitor does not answer.

14.2 - Talk Time

The call time is set by default to 45 seconds. Configurable from the menu (General Settings/Timer When Talking). It is established to make a limiting time to the call and not have it occupied by another user.

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