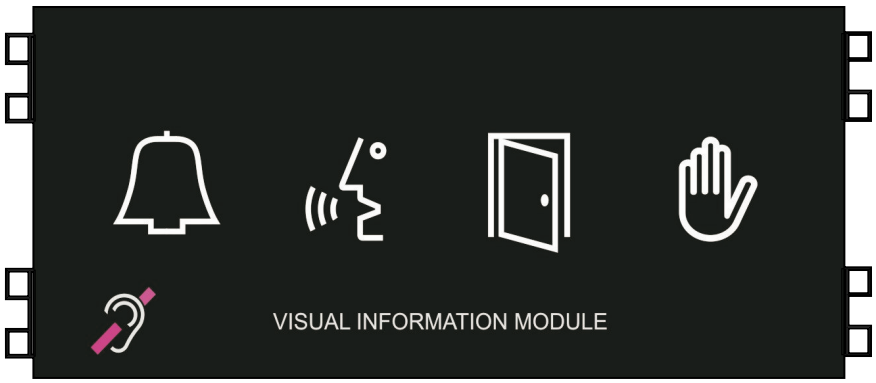
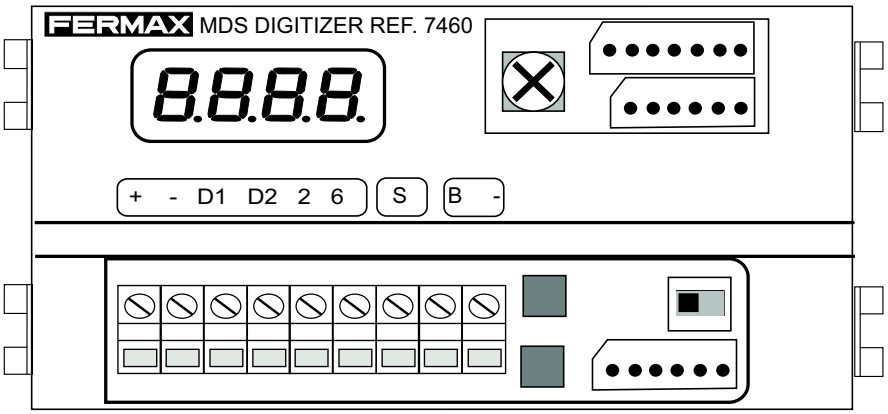
# MDS SKYLINE DIGITISER REF. 2460

97694 I. V11_12




# TECHNICAL BOOK

# GENERAL INDEX

## INTRODUCTION

The MDS DIGITISER Ref. 7460) is a device in the SKYLINE family, with the purpose of being able to configure both MDS CITY and MDS DIRECT panels, since the device allows for both configurations.

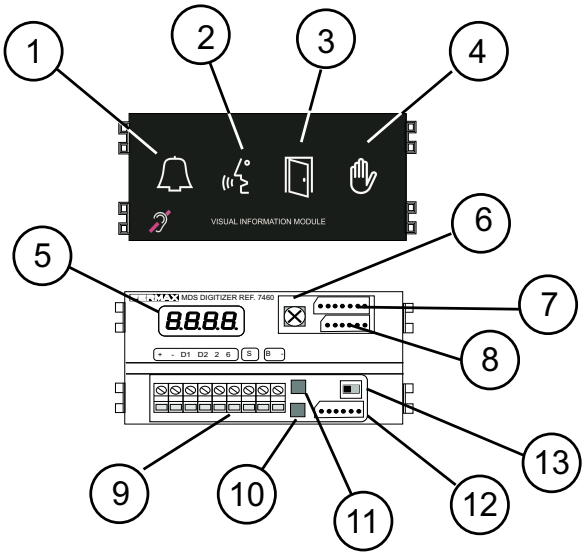
It works in combination with both the keypad SKYLINE MODULES (Reference 7439) and buttons module (References 7371, 7372, 7376, 7367, 7368 and 7375), and even allows for both types of modules. Call extension modules are not required.
The amplifier module to use for these types of panels is the 4+ n Amplifier Module Video Ref. 7406, for video door entry systems, or the 4+n Amplifier modules Audio Ref. 7400 for door entry panels.

Both the MDS GENERAL ENTRANCE and INTERIOR BLOCK panels can be configured, and can be combined with VDS panels to configure systems with the MDS GENERAL ENTRANCE combined with VDS.

This module is also integrated in the MDS DIRECT panels with continuous profile, Ref. 7287 (vídeo) and Ref. 7286 (audio).

It implements a OneToOne front panel, that provides visual information to each of the operating status (calling, conversation, door open and system busy).

## DESCRIPTION OF THE SKYLINE MODULE REF. 7460



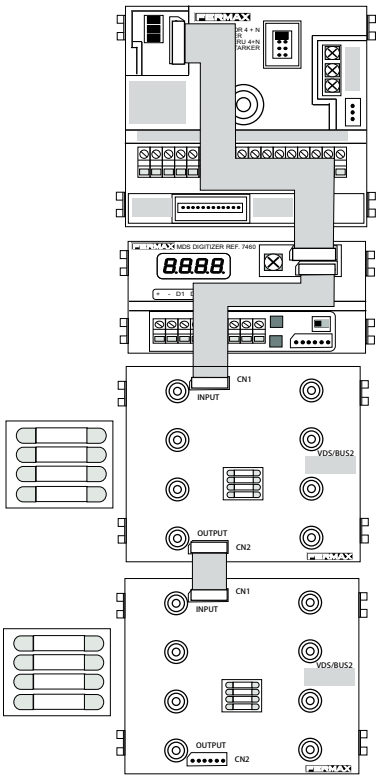

1. **Call indicator.** Lights up after a call is made.
2. **"In conversation" indicator.** Lights while a call is in process.
3. **"Open door" indicator**. Indicates that the door is opening.
4. **"System busy" indicator**. Indicates that another panel is in use.
5. **Programming display.** To help programming.
6. **Acoustic volume indicators regulator**
7. **CN1 Connector.** Amplifier connections (*)
8. **CN2 Connector.** Button and/or Keyboard Module Connections (*).
9. **Installation connections block.** MDS output
10. **S Button (black).** For programming
11. **P Button (red).** For programming
12. **MDS input on the panels back.** If available (*).
13. **Audio switch.** In order to manually enable the audio with decoders.

(*) Module Ref. 7460 comes with the required cables for pre-assembly on the panel.

## ASSEMBLY OPTIONS

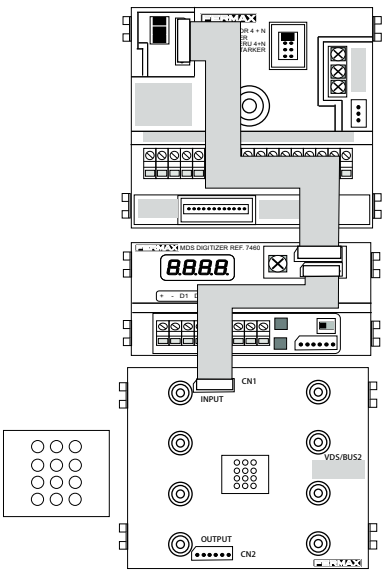
Depending on the modules it is combined with (keypad, buttons or both), the Digitiser offers different features.

### BUTTON ONLY PANELS



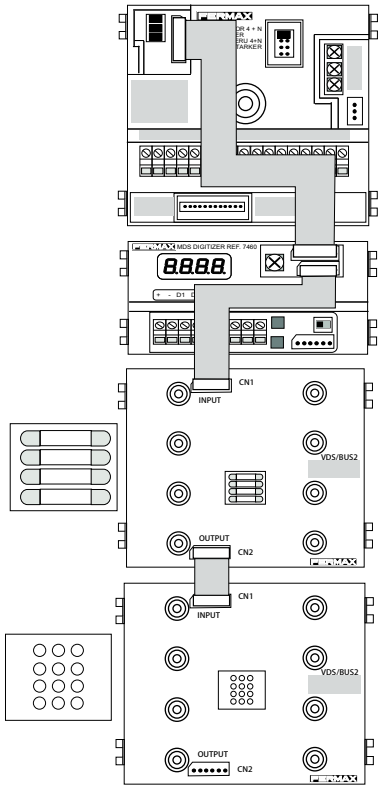

* Calls to residences are made by pressing the corresponding call button.
* You can program the phones both sequentially and individually (or MDS/VDS decoders) for the MDS installations with the VDS).
* You can inversely program the buttons,that is, assign a button to an already programmed telephone.
* The general parameters may not be configured, even though you can check the status of said configuration.
* The maximum number of modules to insert depends on the systems limitation (9999 terminals for MDS installations).
* You can "reset buttons," that is, put all buttons to a default configuration (with the code "0000"). This is useful if you do not know the current programming status, and want to start from a known configuration.

### KEYPAD ONLY PANEL




* Calls to residences are made by pressing the corresponding telephone number on the keypad.
* You can program all of the system's configuration parameters.
* You program the telephones and decoders and change the number of a specific telephone individually.
* You can also open the door by entering a 4 digit code. Even though to activate this code for the first time you need to access the back of the panel. You can change it from the keypad itself (without dismounting the wall panel). This function can be deactivated from the keypad itself. This way to activate it again, you must access the back of the panel.
* You can restore the system to night mode, in which case you need to put it in this mode and then it isn't available or accessible at the Central Guard Unit.
* You can reset the system's configuration parameters to default. This is useful if want to start from a known status.

## BUTTONS + KEYPAD PANEL (buttons "before" the keypad)

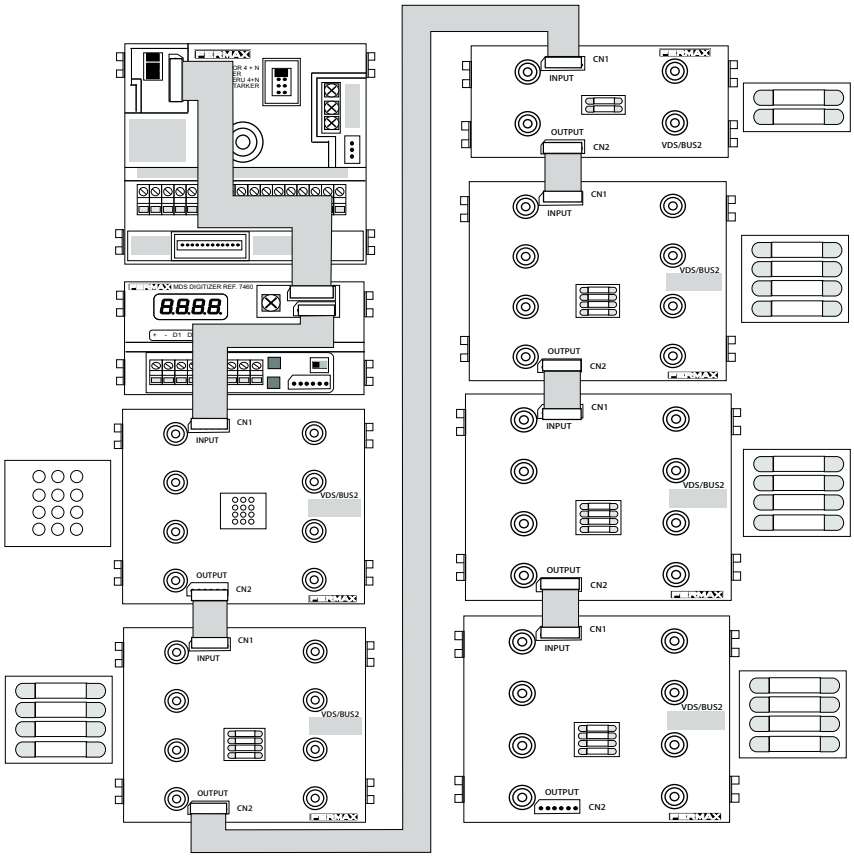



* Calls to residences are made by pressing the corresponding telephone number on the keypad.
  You can also make a call to one or more of the homes via the corresponding button, if assigned to a residence, since you can also assign telephone numbers to buttons.
  This is useful, for example, if you want certain homes, offices or shops to be able to receive calls directly (via the button), instead of dialling a numeric code.

* Assigning a telephone number to a button is done on the keypad itself, not needing to access the residence.

* Just like on the keypad only panels, you can program all of the system's configuration parameters and you can also reset the parameters and buttons.

## KEYPAD + BUTTONS PANEL (keypad "before" the buttons)




This configuration is basically the same as the previous one (button module/modules "before" the keypad). The only difference is aesthetic.

## *TECHNICAL FEATURES*

The MDS Digitiser is an auxiliary device that allows you to configure a SKYLINE panel to be integrated in the MDS DIGITAL installations or combinations of MDS DIRECT with MDS CITY or VDS.

The configuration of the mode in which it should function (GENERAL ENTRANCE or INTERIOR BLOCK), is done via a simple programming after the system installation, keeping in mind the installation's characteristics, and in which no tool or special equipment is required.

The following table specifies the limitations of each of the possible combinations:

| GENERAL ENTRANCES | INTERIOR BLOCKS | LIMITS |
|---|---|---|
| MDS DIGITAL | Panel with Digitiser, configured as an INTERIOR BLOCK. | - 32 accesses to the General Entrance and/or DIGITAL Guard Units.<br>- 99 interior blocks<br>- 99 telephones per block |
| Panel with Digitiser, configured as GENERAL ENTRANCE | Digitiser panel, configured as INTERIOR BLOCK | - 5 accesses of MDS DIRECT General Entrance.<br>- 1 MDS DIRECT Guard unit<br>- 99 interior blocks. 9 accesses per block.<br>- 99 telephones per block |
| Digitiser panel, configured as a GENERAL ENTRANCE | VDS Panel | - 5 accesses of MDS DIRECT General Entrance.<br>- 1 MDS DIRECT Guard unit (general)<br>- 1 VDS guard unit per each block (local)<br>- 99 interior blocks. 2 accesses per block<br>- 199 telephones per block (installations up to 9 blocks).<br>- 99 telephones per block (installations from 10 to 99 blocks)<br>- installations up to 9999 individual homes |

***Observations:***

* You can not configure the MDS DIGITAL combined with the Digitiser configured as GENERAL ENTRANCE, since the management of the general entrances is done via the MDS Central Unit via the panel bus.

* "If the installations with MDS Digitiser that are not developments (only one block), the limit is 5 accesses and 9999 homes.

The main technical characteristics of the MDS Digitiser are as follows:

* Programming via 2 buttons. With a digital display of 4 digits that help programming. This allows for the programming of MDS DECODERS, MDS/VDS DECODERS when programming and changing already programmed telephone numbers.

* Activation time of the lock release is programmable between 1 and 99 seconds, and indistinctly for the opening from homes or from the button inside the entrance hall.

* Maximum and minimum programmable conversation time according to the following sections:

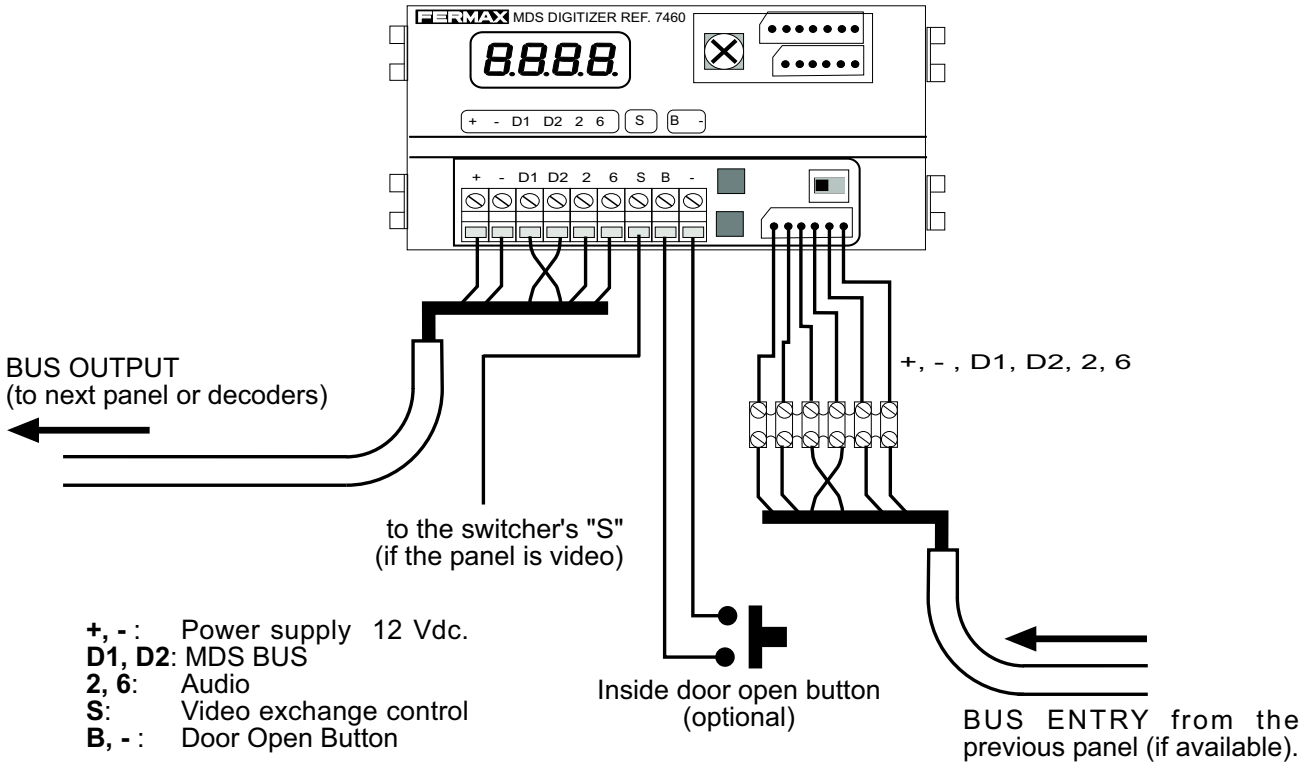
  SECTION 1: Maximum time = 60 seconds. Minimum time = 16 seconds

  SECTION 2: Maximum time = 120 seconds. Minimum time = 32 seconds

  SECTION 3: Maximum time = 180 seconds. Minimum time = 48 seconds

* Dynamic start-up routine: this automatically detects the type of modules (keypad and/or buttons) connected, and adjusts the menu accordingly, since they are different depending on whether it is a button, keypad or mixed panel.

Digitiser general connections:




*For more details, see corresponding installation diagram.*

## *TECHNICAL SPECIFICATIONS*

- Power supply: 12 Vdc/ 150 mA (max)
- BUS: MDS FERMAX protocol on RS-485
- Operating temperature: -10º C, +40º C
- IP=43; IK=05

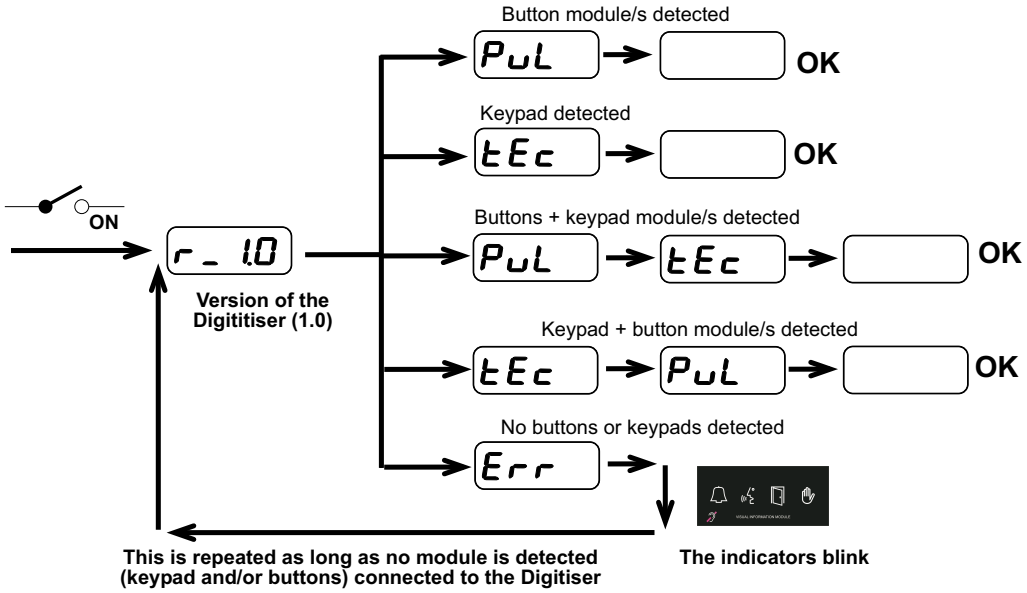
## START-UP ROUTINE

The MDS Digitiser has a start-up routine that allows the installer to verify if the modules connection has been properly made, otherwise, if there is a problem with the connections, and the information on the incorporated firmware version.

After powering it, the front display shows the firmware version and then indicates the type of modules detected and their order, that is, the first information indicates what type of module is connected directly to the Digitiser, and the following information indicates the next one's or module's type.

If no module is detected (due to a failure or if not connected), this routine will continue to repeat, until one is detected. The digitiser's front indicators blink and the display only indicates the firmware version and the "Err" (error).

The type or types of modules detected will determine the panel's operating mode (MDS DIRECT, MDS CITY or mixed). The following diagram schematically represents this start-up routine:




## RESTORING DEFAULT SETTINGS

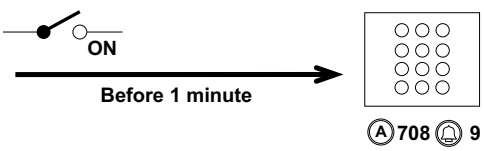
You can reset the Digitiser's configuration to its default values. This is useful, for example, if you don't know the mode it's configured in and want to start from a known value.

The default configuration values are as follows:

- Panel number: 01
- Block number: 00
- Lock-release activation time (when opened from the residence): 3 seconds.
- . Lock-release activation time (when opened from the entrance hall's button): 6 seconds
- Conversation time. Max.: 60 seconds. Min: 16 seconds
- NIGHT MODE Panel.

This operation can only be performed on panels with the keypad module, or those provisionally connected to one.

The steps for restoring are to power the system and enter "A-7-0-8-BELL-9" on the keypad in less than 1 minute's time.



## RESTORING NIGHT MODE

The MDS systems that have some type of Central Guard Unit may function in DAY MODE: The calls from the street panels to the homes are only received in the Guard unit, or in NIGHT MODE, the calls are received in the homes. Changing from one mode to another is done from the Central Guard Unit.

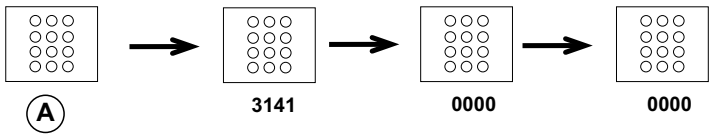
A system may be configured in DAY MODE, and not be able to make the change to NIGHT MODE, since the Central Guard Unit isn't available or accessible. In this situation, the calls are not received in the homes, but are forwarded to the Central Guard Unit (even if the central is not physically connected).

From the panel with Digitiser you can restore the NIGHT MODE panel and then allow for calls to homes.

This operation is only done via the panels with keypad module, or provisionally connected to a module.

The procedure is the following:

- Press the "A" key
- Mark the sequence "3 - 1 - 4 - 1"
- Mark the sequence "0 -0 -0 -0" (twice).




This resetting can also be done via the programming. See the SYSTEM PROGRAMMING section.

## OPENING THE DOOR WITH THE PIN

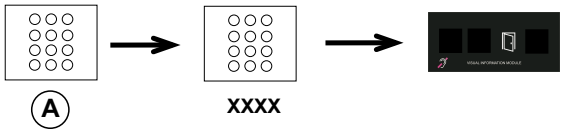
The panels with keypad module have the front entrance door open function via a general 4-digit PIN. Upon entering this code via the keypad, you can open the door.

This code is programmed and active via the SYSTEM PROGRAMMING (see the corresponding section), even though it can be changed later from the keypad itself. It can be deactivated as well. To activate and program again, you need to do so via the SYSTEM PROGRAMMING, that is, accessing the front part of the panel.

The way to open the door via the PIN is as follows:

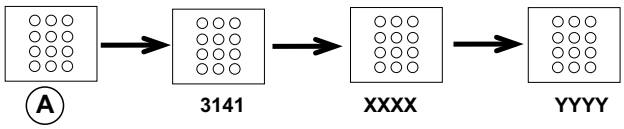
- Press the A key
- Mark the PIN code. The "door" icon on the digitiser's front OneToOne is lit.

The procedure for changing the code via the keypad is as follows:




**XXXX: Current code**

- Press the A key
- Mark the 4 digits of the current code
- Mark the 4 digits of the new code (do not use 3-1-4-1, since that's the system's internal code).

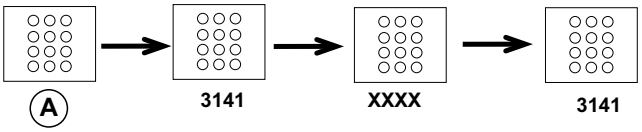



**XXXX: Current conde**

**YYYY: New code (do not use 3141)**

The deactivation procedure (disable) for the PIN opening is as follows:

- Press A key
- Mark the sequence "3 - 1 - 4 - 1"
- Mark the 4 digits of the current code
- Re-enter "3 - 1 - 4 -1"




**XXXX: Current code**

## *CALLING THE GUARD UNIT*

If an installation includes an MDS CITY/DIRECT Central Guard Unit ref. 2532, and if in DAY MODE, calls from the General Entrance street panels are received in the guard unit, instead of the homes.

The panel also generates calls to the guard unit in the following cases:

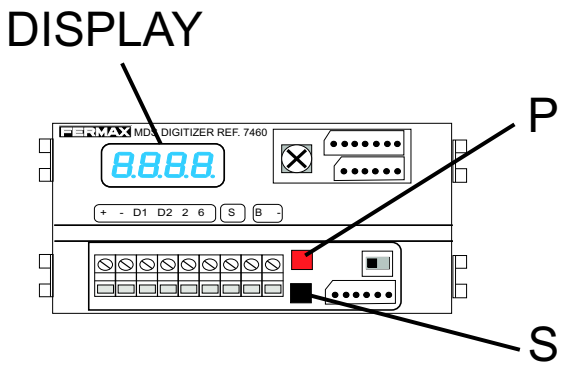
- **Panels with keypad:** pressing "0" + 
- **In panels with buttons**: from any button that has not been programmed (or if programmed as "0000").

Once installed, programming the Digitiser is done via the P and S buttons on its backside.

Via this programming you define the parameters of the panel in which they are mounted, along with other operating parameters.

It has a DISPLAY with 7 segments that offer visual information to help programming.
This manual indicates which screens are shown on this display in each programming step.

Besides the light indicators, the Digitiser can emit a deep (mook) acoustic tone during programming to indicate an error in the data-entry, or a high acoustic tone (beep) to indicate that the operation is performed correctly.




Antes de proceder a la programación, tendremos que tener claro los parámetros de configuración, con el fin de evitar malfuncionamientos en la operativa del sistema.

Estos parámetros son los siguientes:

**ENTRADA GENERAL/BLOQUE INTERIOR:** Dentro de una urbanización, debemos indicar si la placa está instalada como una ENTRADA GENERAL a la misma, o por el contrario es una placa instalada como entrada a un BLOQUE INTERIOR.
*En el caso en que se instale en un edificio individual (que no sea una urbanización), se debe considerar como BLOQUE INTERIOR.*

- ***La configuración de fábrica es BLOQUE INTERIOR***
- ***Al programar un teléfono desde una placa configurada como BLOQUE INTERIOR, al número introducido se le añade automáticamente el numero del bloque.***

  *Por ejemplo, si el BLOQUE INTERIOR es el número 07 y programamos un teléfono como 23, el número con el que realmente es programado el teléfono es el 723.*
  *Del mismo modo, al realizar la llamada desde el BLOQUE INTERIOR, marcaremos 23, pero el código de llamada enviado realmente será 723.*
  *Desde la ENTRADA GENERAL (que no añade nada), para llamar a este número de teléfono, tendremos que marcar 723.*

**NUMERO DE BLOQUE:** En el caso de placas de BLOQUE INTERIOR, es necesario identificar en qué bloque está instalada. Para ello, cada una de estas placa se ha de configurar con el NUMERO DE BLOQUE correspondiente.

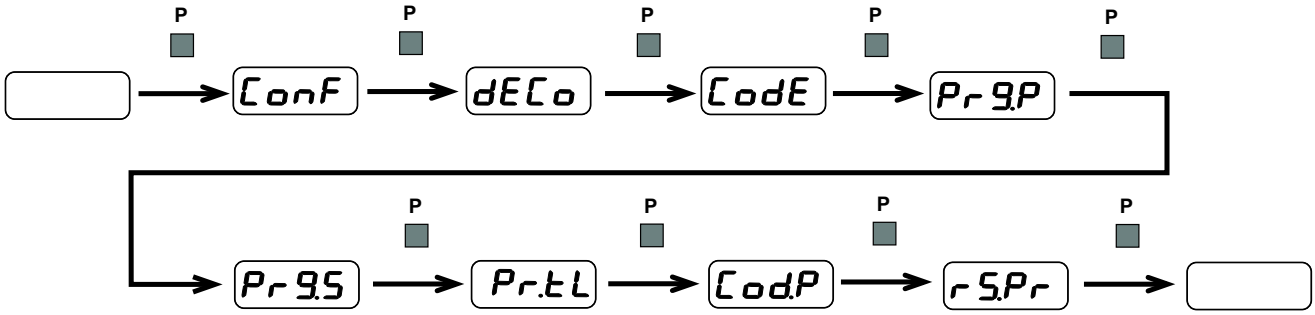
- ***Los posibles valores a asignar son del 00 al 99. Utilizar número correlativos, empezando por el 00.***
- ***El valor de fábrica es 00.***
- ***En el caso de placas configuradas como ENTRADA GENERAL, este parámetro no se configura.***

**PANEL NUMBER:** Each panel in the development must be identified. For this you must assign THE PANEL NUMBER There must not be a repeated panel number amongst the GENERAL ENTRANCES and no repeated panel number amongst the INTERIOR BLOCK.

* ***The possible values to assign are 01 to 05 (if the panel is configured as a GENERAL ENTRANCE, or from 01 to 09 if the panel is assigned as an INTERIOR BLOCK. Use correlative numbers starting with 01.***
* ***Default value is 01.***
* ***Do not use value 00 for PANEL NUMBER***

## *MAIN MENU*

In order to enter in the Digitiser's programming mode, press the P button until the first option on the GENERAL OPTION'S MENU appears (Parameter Configuration).
Repeatedly press until reaching the desired option, according to the following diagram.



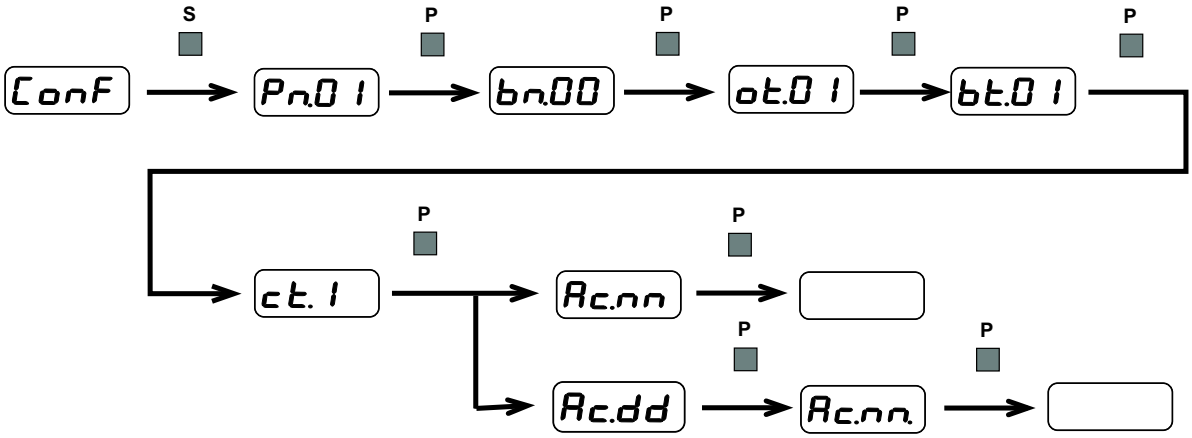

Depending on the type of module/s detected during start-up, the Digitiser will only present the options relative to the type of panel, according to the following table:

| GENERAL OPTION | DISPLAY | NECESSARY MODULES | OBSERVATIONS |
|---|---|---|---|
| PARAMETER CONFIGURATION | ConF | / | Programming the panel's general parameters.<br><br>On panels with only buttons, you can not program these parameters, but you can verify the programming status. |
| PROGRAMMING DECODERS | dECo | / | Programming decoders (both for MDS and VDS) |
| ENABLE AND ASSIGN PIN TO OPEN THE DOOR | CodE | | Programming and activation of the PIN to open the front entrance door. |
| ASSIGN A TELEPHONE NUMBER TO A BUTTON | CodP | + | Assign a telephone number to a button for direct calling |
| INVERSE PROGRAMMING OF BUTTONS | Pr9P | | Assign a button to a specific telephone (previously programmed). |
| SEQUENTIAL PROGRAMMING OF BUTTONS | Pr9S | | Assign the buttons to telephones sequentially. |
| SEQUENTIAL PROGRAMMING OF TELEPHONES | PrtL | | Assign/change the number of a specific phone. |
| RESET BUTTONS | rSPr | | Set all panel buttons to the default settings (with the number "0000"). |

To exit the programming, repeatedly press the P button, from the GENERAL OPTIONS MENU until the display turns off.
**The reader will automatically exit programming mode after 120 seconds of inactivity.**

## *Configuration of Parameters*

With this we option we program the panel's general parameters.
Starting from the general option CONFIGURING PARAMETERS, press the S or P button, following the attached diagram, to access the desired parameter.

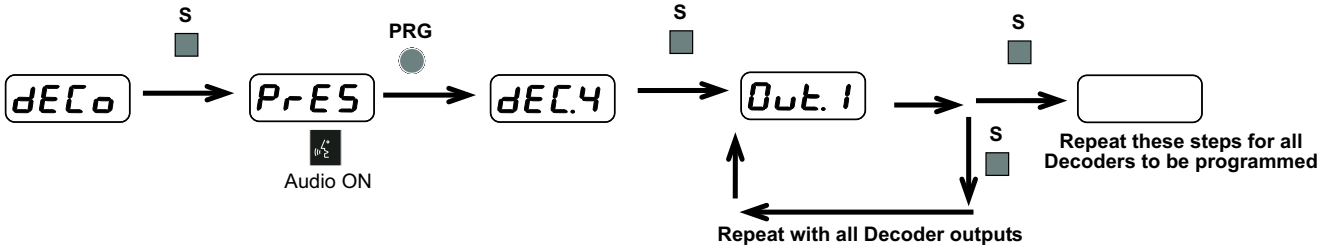



| INDICATIONS | DISPLAY | OBSERVATIONS |
|---|---|---|
| PANEL NUMBER<br>Pn.xx | Pn.01 | Identification of the panel number of a development or block with various accesses.<br>Possible values: 01-05 (if a General Entrance)<br>01-09 (if an Interior Block). |
| BLOCK NUMBER<br>bn.xx | bn.00 | Identification of the block number where the panel is installed.<br>Possible values: 00-99<br>If a General Entrance, press the key : 🔔<br>(The display will indicate Egrl) |
| OPEN DOOR TIME<br>(from the homes)<br>ot.xx | ot.01 | This is the door lock-release activation time in seconds when the door opening command is activated from the home's telephone.<br><br>Possible values: 00-99 |
| OPEN DOOR TIME<br>(from the entrance)<br>bt.xx | bt.01 | This is the door lock-release activation time in seconds when the door opening command is activated from the front entrance's telephone.<br>Possible values: 00-99 |
| CONVERSATION TIME<br>(maximum and minimum)<br>ct.xx | ct. 1 | Determines the minimum time guaranteed and the maximum time allowed for conversations maintained between this panel and a house .<br>Possible values: 01 = T.max: 60 sec. and T.min.: 16 sec.<br>02 = T.max: 120 sec. and T.min.: 32 sec.<br>03 = T.max: 180 sec. and T.min.: 48 sec. |
| RESETTING NIGHT MODE PANEL<br>Ac.dd (day mode)<br>Ac.nn (night mode) | Ac.dd<br>Ac.nn | This allows you to change the operating mode from Day mode to Night Mode in cases where it is not possible to do so from the Central Guard Unit. |

## *Decoder Programming*

This option allows you to program the MDS or VDS decoders configuring the different panel general parameters.

Starting from the general DECODER PROGRAMMING option, follow the indications on the following diagram and table:




Audio ON

**Audio is established between the panel and the decoder, so you can communicate via the panel and decoder by connecting a telephone jack to this..**

| INDICATIONS | DISPLAY | OBSERVATIONS |
|---|---|---|
| PANEL PREPARED | PrES | The panel is already prepared for programming the Decoder. You have 120 seconds to put the decoder in programming mode. |
| PREPARAR DECODER | PRG | Press the programming button of the decoder to be programmed. |
| DECODER PREPARED | dEC.4<br>dEC.8 | The Display will indicate the type of Decoder to be programmed<br>Possible values:<br>dEc.4: Decoder MDS de 4 outputs (or Decoder VDS configured as range)<br>dEc.8: Decoder MDS de 8 outputs (or Decoder VDS configured as DECODER 8) |
| PROGRAM DECODER | **If a MDS DECODER or VDS DECODER VDS configured as a DECODER 8** | |
| | Out. 1 | Press the button to assign a telephone connected to the first decoder output, or<br>Dial the number of the home to assign (two digits), or dial A if you want to exit without programming. (It is really programmed with the code "0 0 0 0". |
| | **Repeat these steps with the remaining decoder outputs** | |
| | **DISPLAY INDICATIONS**<br>" - - - -" : the decoder output has not been programmed yet.<br>" x x x x" : telephone number to be programmed.<br>If an Interior Block panel, the assigned number is automatically that of the Interior Block Number.<br>After confirming with "S":<br>"E r r " : the number being programmed is already assigned.<br>"Good" : the number has been programmed correctly. | |

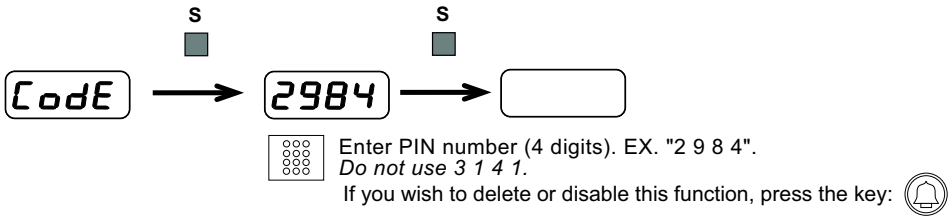
| | | |
|---|---|---|
| PROGRAM DECODER | **If a VDS DECODER configured as a range** | |
| | Out. 1 | Indicate the first address in the range and confirm with "S". |
| | Out2 | Indicate the last address in the range and confirm with "S". |
| | Out3<br><br>0000<br>↑ ↓<br>- - - - | Indicate if you want to be able to program the telephones from the General Entrance panel or from the block's VDS Panel.<br><br>Allow VDS telephones from the interior block to be programmed from the General Entrance.<br>*Useful for cases in which there is no interior panel.*<br><br>(A) VDS telephones may only be programmed from the VDS panel of the same block.<br><br>After selecting the option confirm with "S". |
| | Out4 | No function. Press and confirm with"S"· |
| | **DISPLAY INDICATIONS**<br><br>" - - - -" : the decoder output has not been programmed.<br>" x x x x" : number to be entered. .<br><br>After confirming with "S":<br>"E r r " : the number being programmed is not possible.<br>"Good" : the number has been properly entered. | |

See the VDS Decoder's Technical information for more details.

## *Enable and assign the PIN to open the door*

This option allows you to activate and program a PIN, via which the user can open the front entrance door.

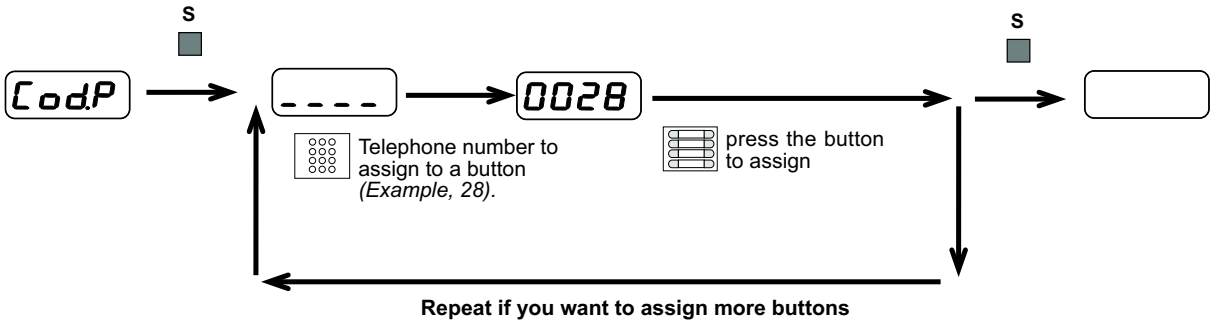
Once the ENABLE AND ASSIGN PIN option has been selected from the main menu, follow the steps on the following diagram:




## *Assign a telephone number to a button*

This option allows you to, on mixed panels (keypad + buttons), assign a button to facilitate the call to a specific telephone.

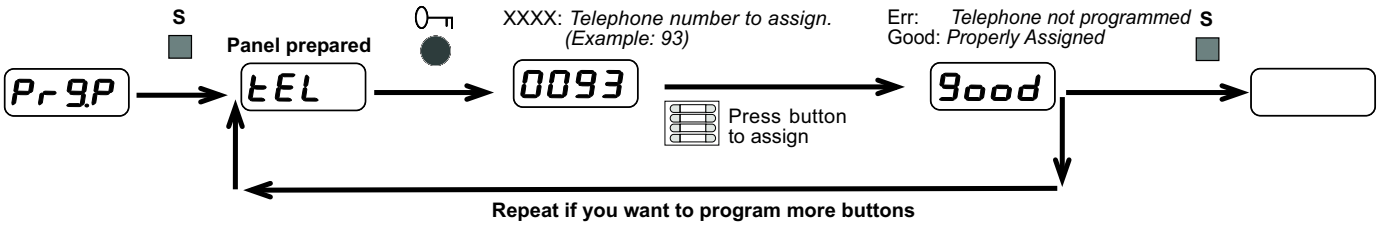
Once the ASSIGN A TELEPHONE NUMBER TO A BUTTON option has been selected from the main menu, follow the steps on the following diagram:




## *Inverse programming of buttons*

This option is only available on panels with only buttons, and allows you to assign a button an already programmed telephone.

Once the INVERSE PROGRAMMING OF BUTTONS option has been selected from the main menu, follow the steps on the following diagram:

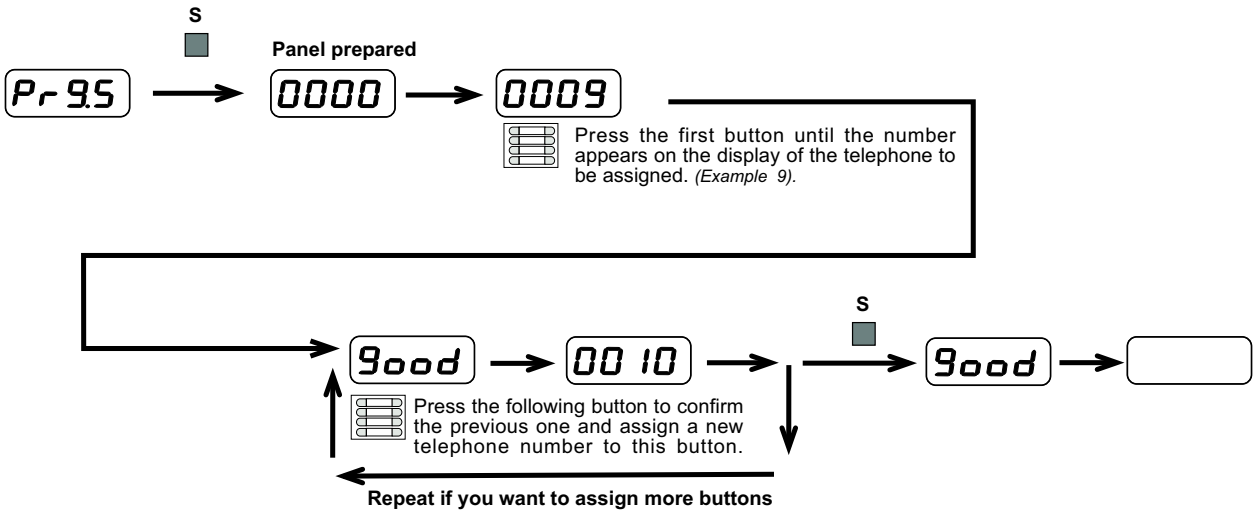



*Press the door-opening button on the telephone to assign*

## Sequential programming of buttons

This option is only available on panels with only buttons, and allows you to assign a button an already programmed telephone.

Once the SEQUENTIAL PROGRAMMING OF BUTTONS option has been selected from the main menu, follow the steps on the following diagram:




## Programming of telephones

This option is only available on panels with keyboard, and allows yoy to program telephones.

Once the SEQUENTIAL PROGRAMMING OF TELEPHONES option has been selected from the main menu, follow the steps on the following diagram:

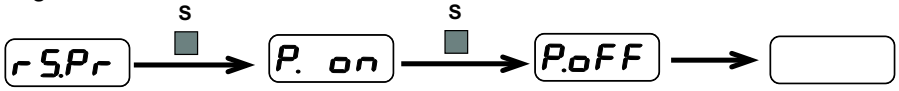

**Press the open door button (conventional telephone) or Programming Button (VDS telephone)**

Audio ON **The audio channel with the decoder remains open, so you can talk by connecting a headphone jack to the connector.**

## Buttons reset

This option is useful on panels with buttons when you don't know their programming status.

Once the BUTTONS RESET option has been selected from the main menu, follow the steps on the following diagram:




All buttons on the panel must have the default address, that is "0000".

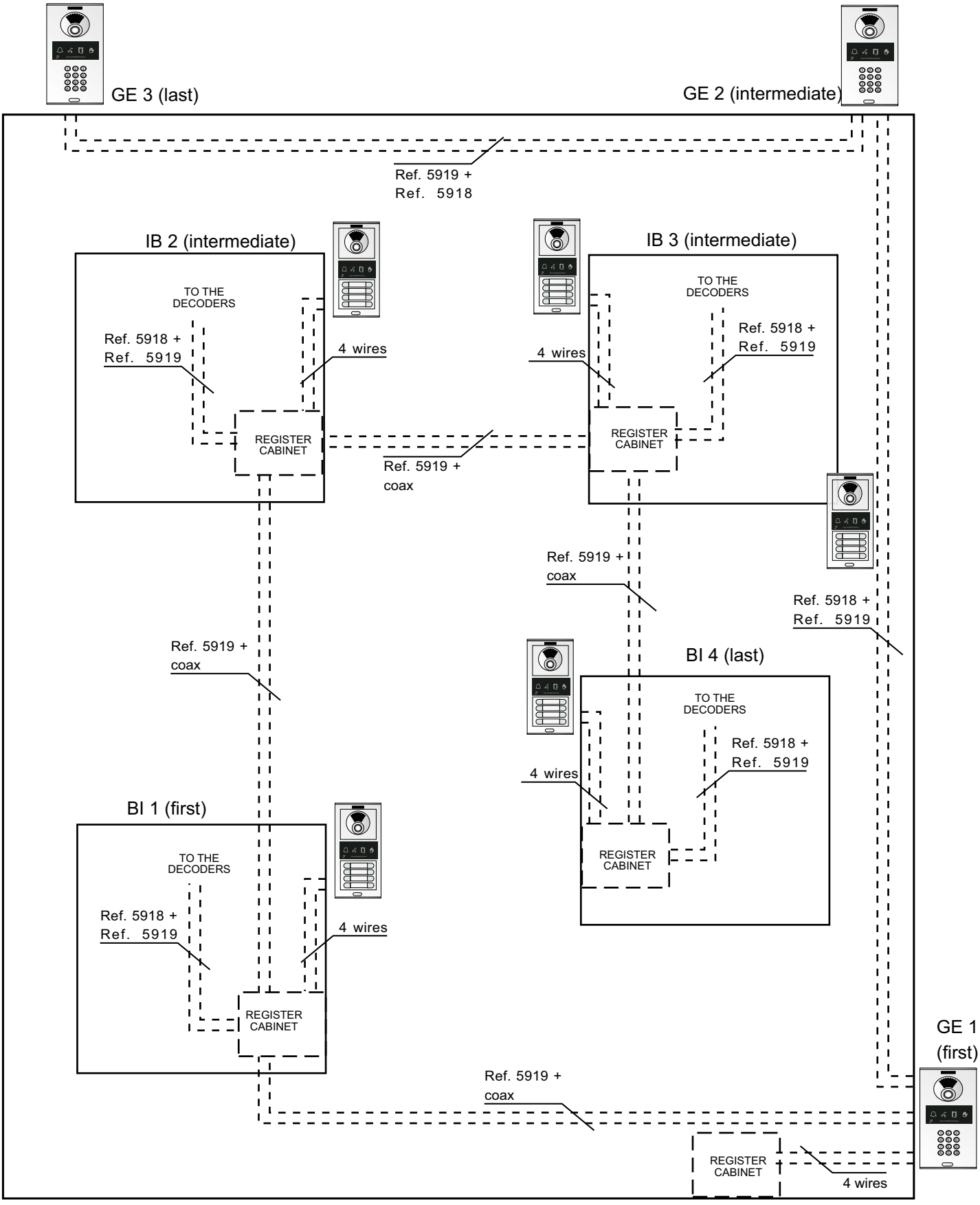
# EXAMPLES OF CHANNELING DIAGRAMS



# POWER AND RECOMMENDED SECTIONS

## *THREE GENERAL VIDEO ENTRANCES TO 4 MDS INTERIOR BLOCKS*

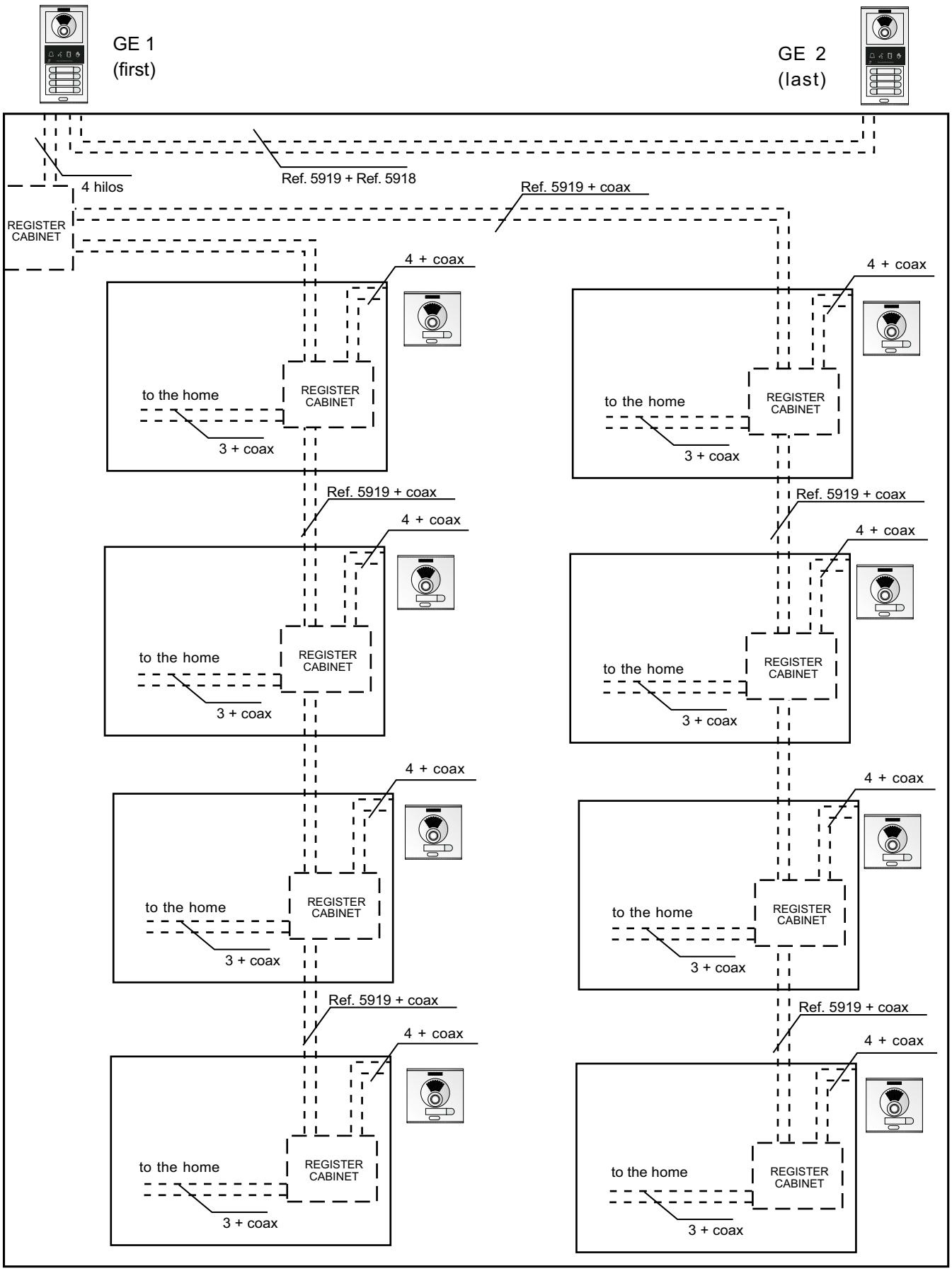
The General Entrances with MDS panels with keypad, and the interior blocks with MDS button panels.



## *DOS ENTRADAS GENERALES DE VIDEO A 8 VIVIENDAS UNIFAMILIARES*

TWO GENERAL VIDEO ENTRANCES TO 8 SINGLE-FAMILY HOMES

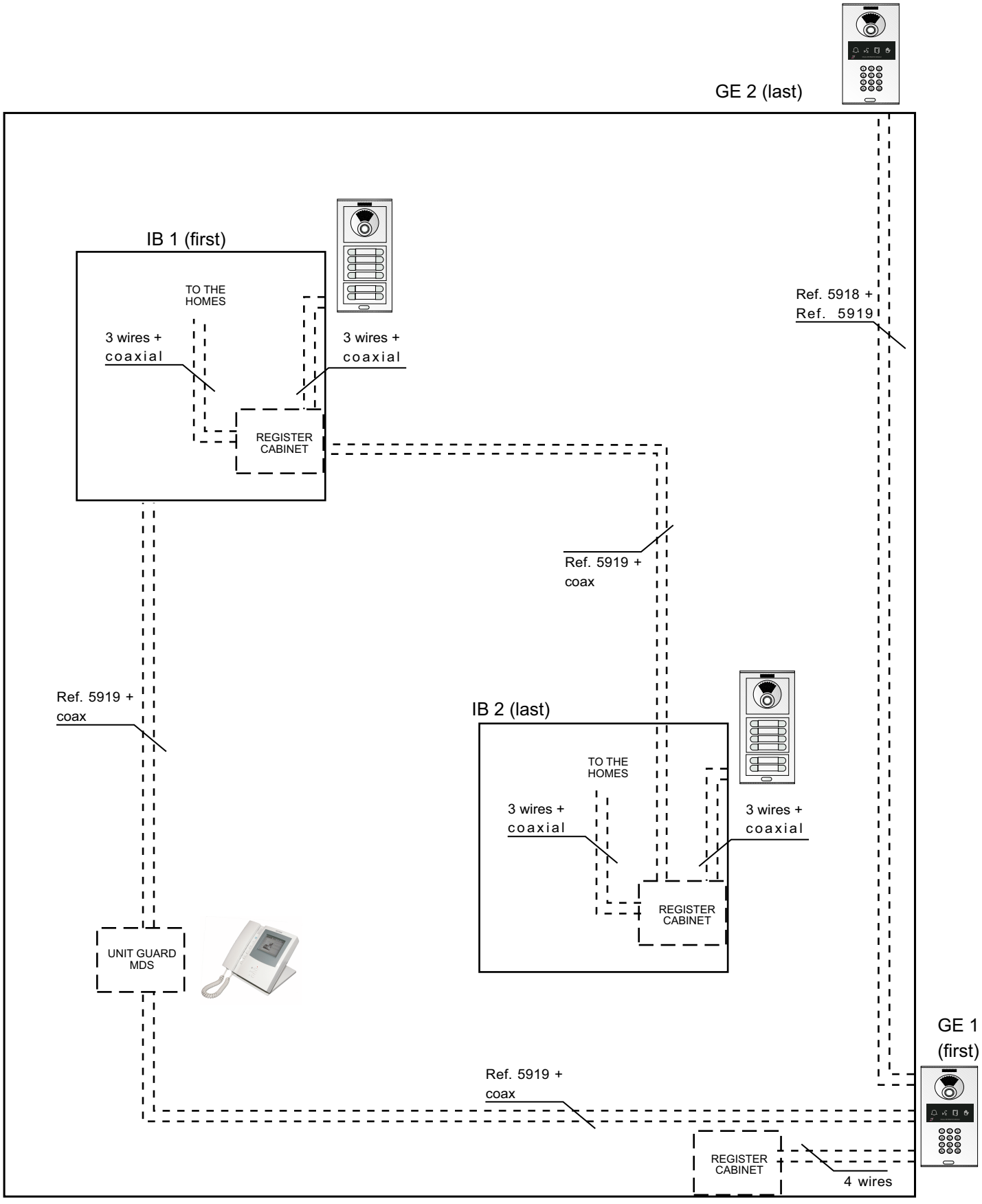
The General Entrances with MDS panels and VDS kit in the homes.



## *DOS ENTRADAS GENERALES DE VIDEO A 2 BLOQUES INTERIORES VDS*

TWO GENERAL VIDEO ENTRANCES TO 8 SINGLE-FAMILY HOMES

The General Entrances with MDS panels and interior blocks VDS.




**NOTE: The guard unit is always inserted between the EG1 panel and the interior blocks.**

## *Power supplies*

| | | |
|---|---|---|
| **MDS GENERAL ENTRANCES (UP TO 5 PANELS)** | | |
| Ref. 4813. 12 Vdc/2A | Audio and data power | 1 Power supply is enough up to 5 panels |
| Ref. 4830. 18 Vdc/2A | Video power | 1 Power supply is enough uto to 5 panels |
| **INTERIOR BLOQUES MDS (UP TO 40 HOMES)** | | |
| Ref. 4813. 12 Vdc/2A | Audio and data power | 1 Power supply for each interior block |
| Ref. 4830. 18 Vdc/2A | Video power | 1 Power supply for each interior block |
| **INTERIOR BLOCKS (UP TO 60 HOMES)** | | |
| Ref. 4830. 18 Vdc/2A | Audio and video power | 1 Power supply for each interior block |

## *Section and distances for MDS wiring*

| DISTANCE (in metres) | Wire section (cables) based on the distance | Coaxial video |
|---|---|---|
| up to 300 | 4 wires of 1 $mm^2$ + 1 shielded twisted pair 0,5 $mm^2$ | RG-59/U (75 Ohm) |
| 300 to 500 | 4 wires of 1,5 $mm^2$ + 1 shielded twisted pair 0,5 $mm^2$ | RG-6/U (75 Ohm) |
| 500 to 1000 | 4 wires of 2,5 $mm^2$ + 1 shielded twisted pair 0,5 $mm^2$ | RG-11/U (75 Ohm) |
| 1000 to 1500 | 4 wires of 4 $mm^2$ + 1 shielded twisted pair 0,5 $mm^2$ | RG-11/U (75 Ohm) |

Fermax supplies the hose Ref. 5918, especially designed for MDS installations. Includes4 1mm2 wires + 1 shielded twisted pair of 0.5 mm2 and is suitable for distances of up to 300 metres.

## *SECTION AND DISTANCES FOR VDS WIRING*

| DISTANCE (in metres) | Wire section (cables) based on the distance |
|---|---|
| up to 50 | 3 wires of 1 $mm^2$ + 1 coaxial RG-59/U |
| 50 to 100 | 3 wires of 1,5 $mm^2$ + 1 coaxial RG-59/U |
| 100 to 200 | 3 wires of 2,5 $mm^2$ + 1 coaxial RG-59/U |

Fermax supply the hose Ref. 5919, especially designed for VDS installations and for video connections between the General Entrance in MDS installations. And is suitable for distances of up to 50 metres (in VDS) and up to 100 mts (in MDS video).

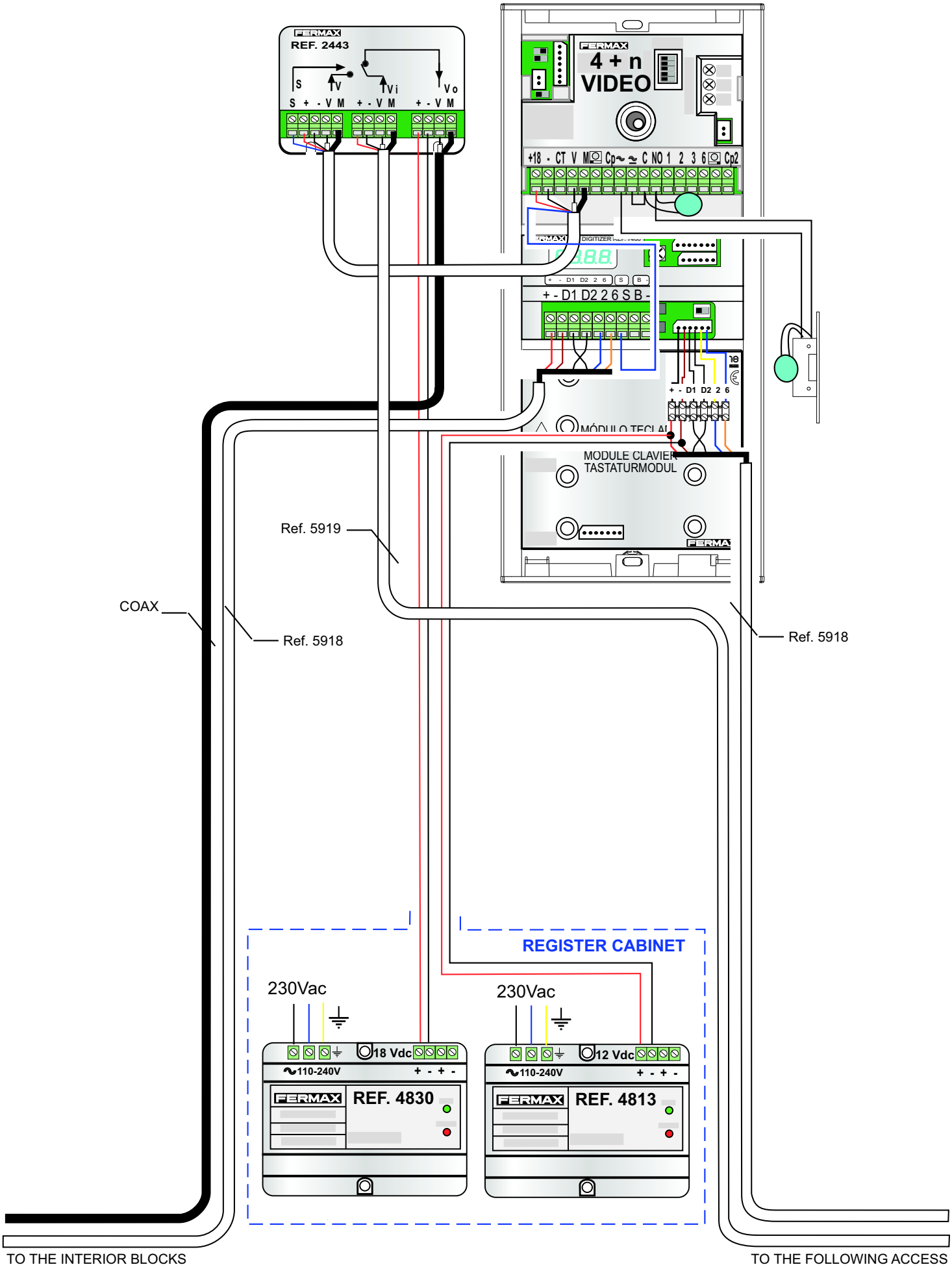
# GENERAL ENTRANCE DIAGRAMS

## GENERAL VIDEO ENTRANCE

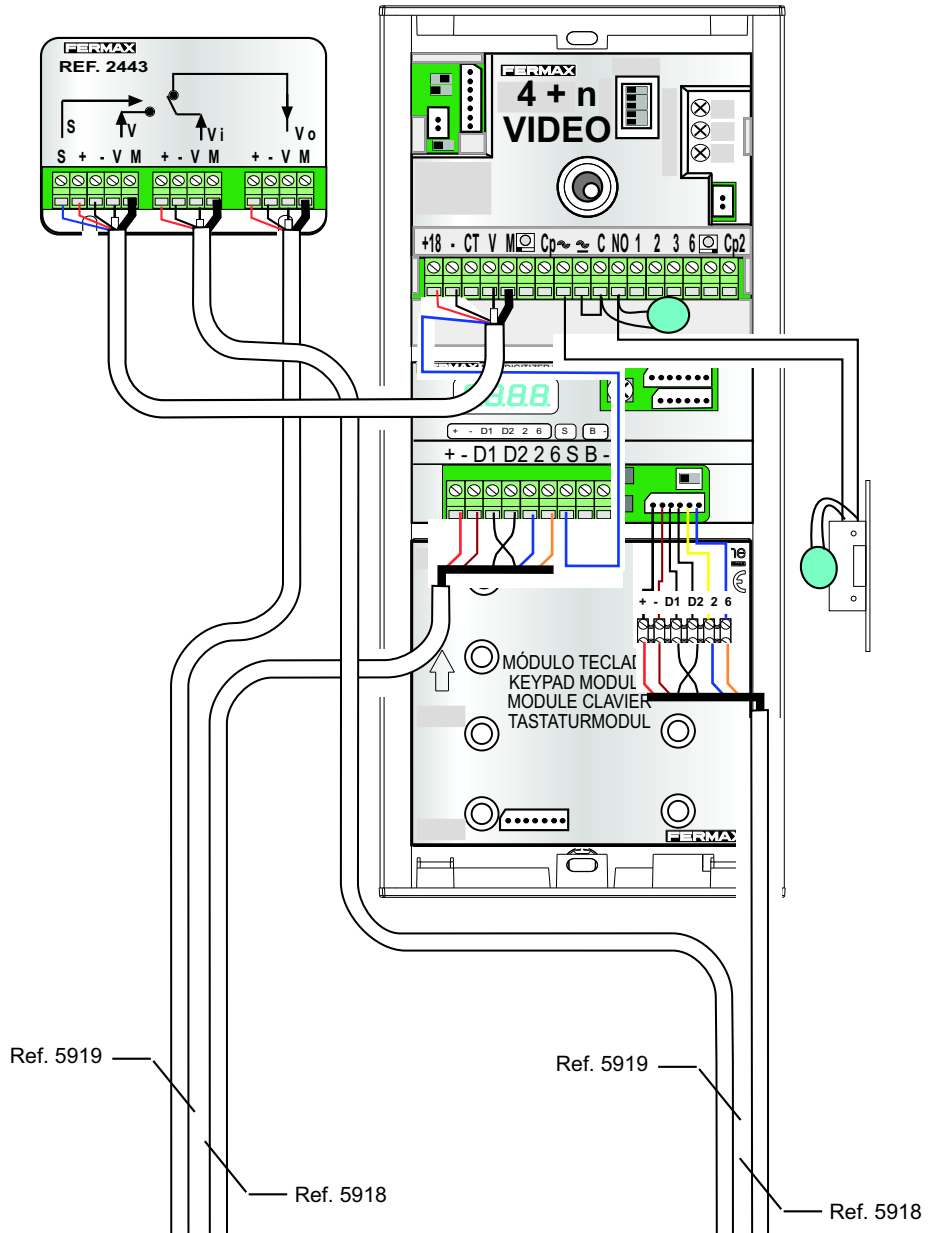


## GENERAL AUDIO ENTRANCE

## *INSTALLATION WITH VARIOUS ACCESSES- FIRST ACCESS*



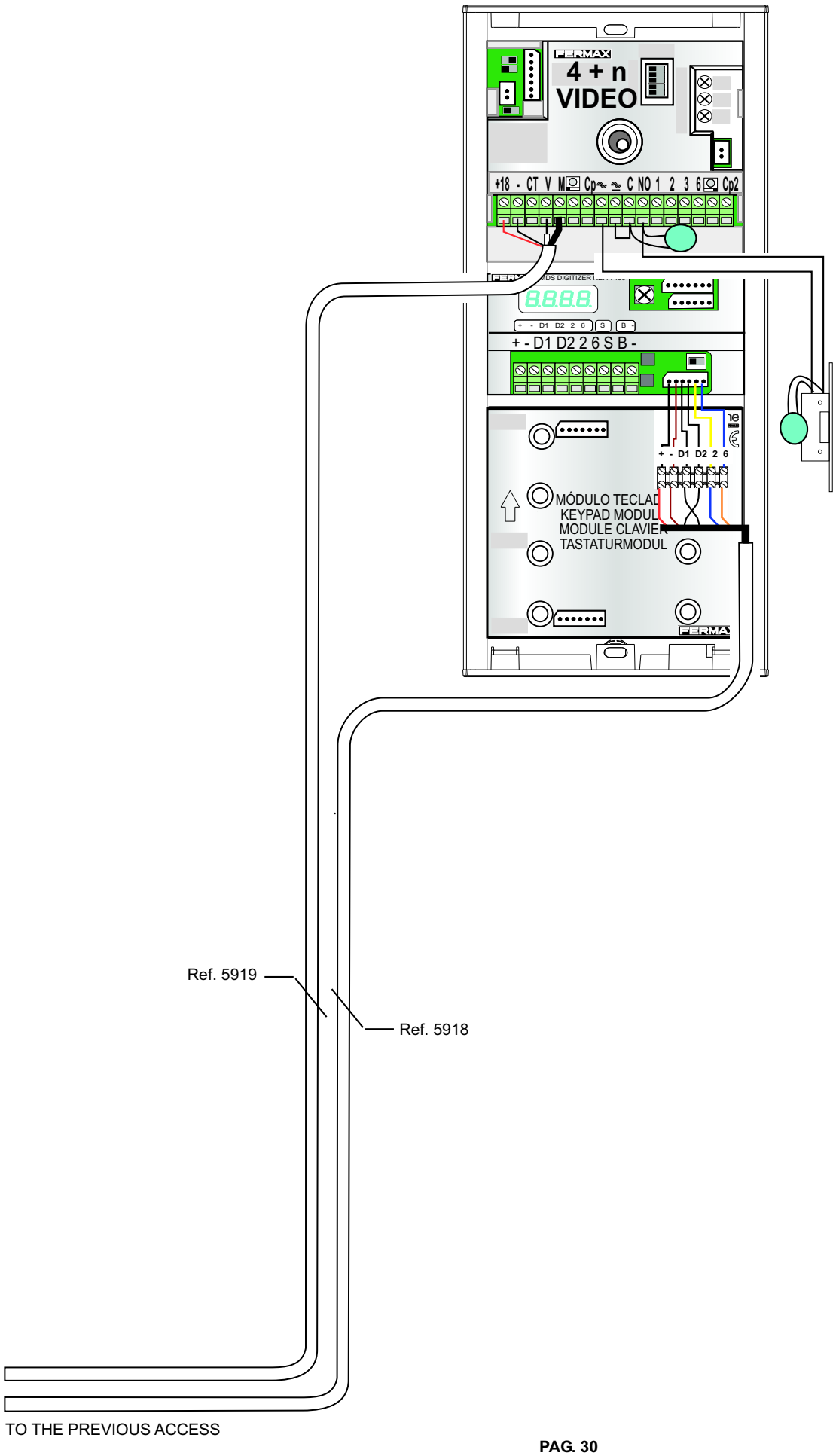
## *INSTALLATION WITH VARIOUS ACCESSES- INTERMEDIATE ACCESS*



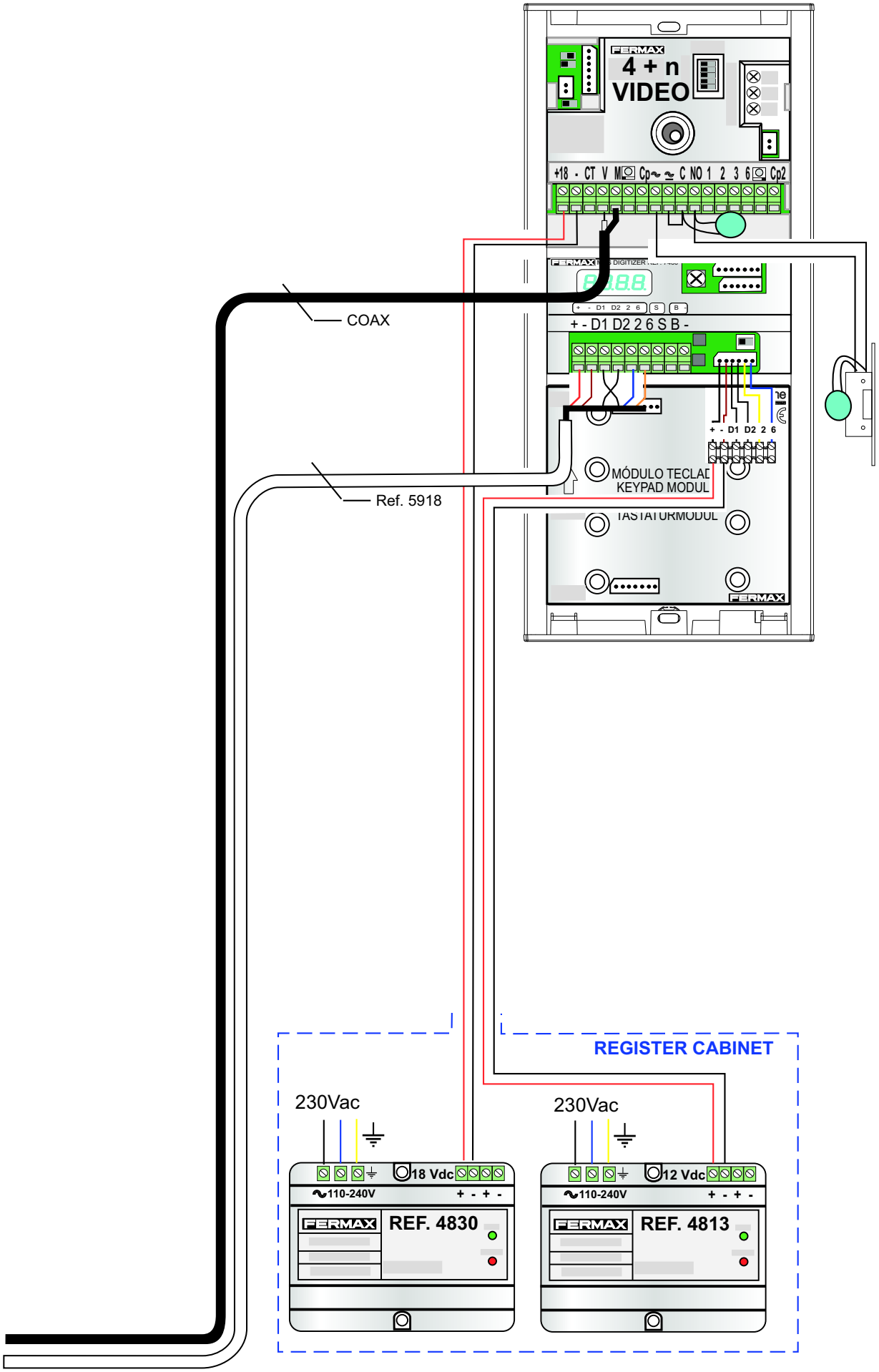

TO THE PREVIOUS ACCESS

TO THE FOLLOWING ACCESS

## *INSTALLATION WITH VARIOUS ACCESSES- LAST ACCESS*

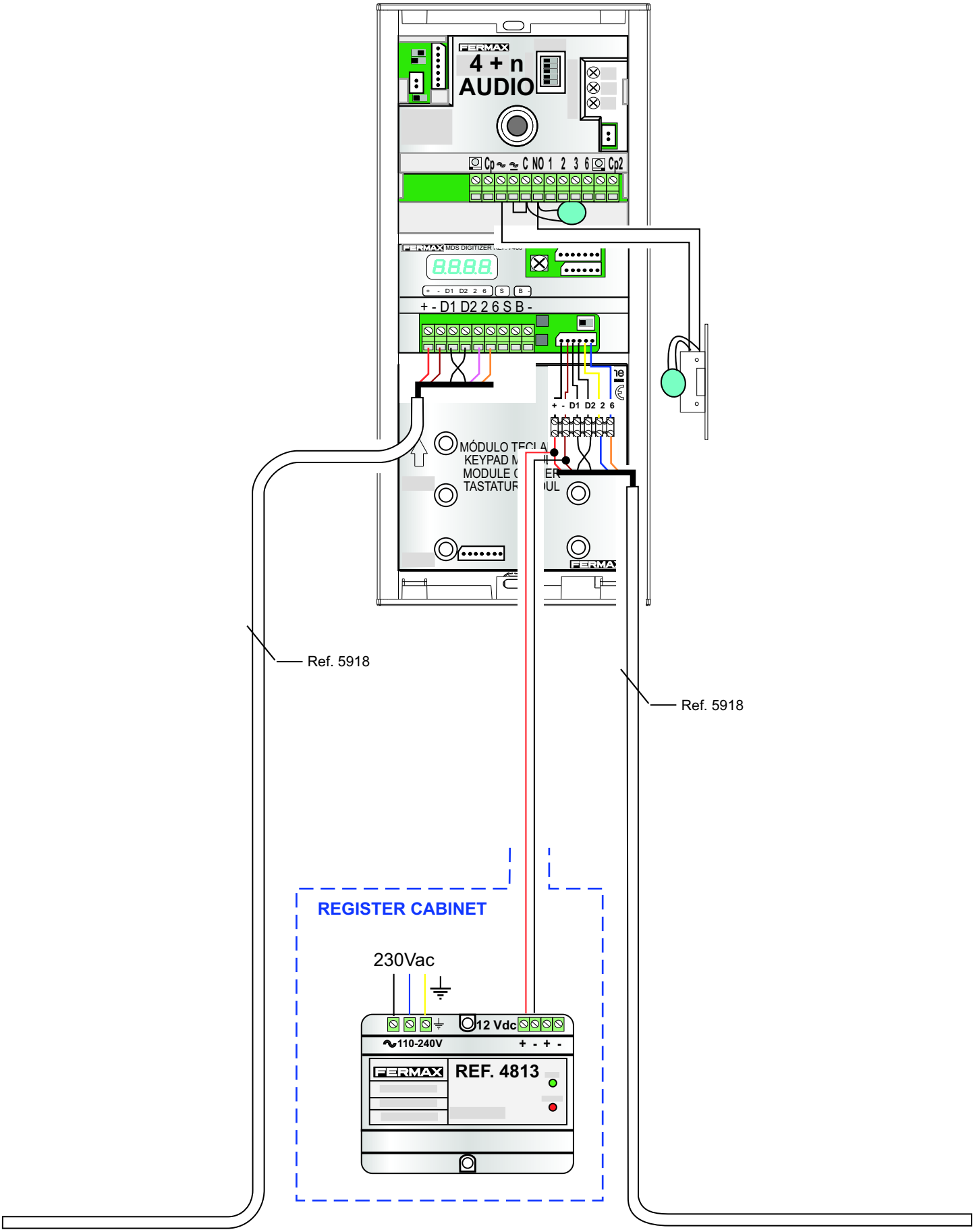


## *INSTALLATION WITH A SINGLE ACCESS*

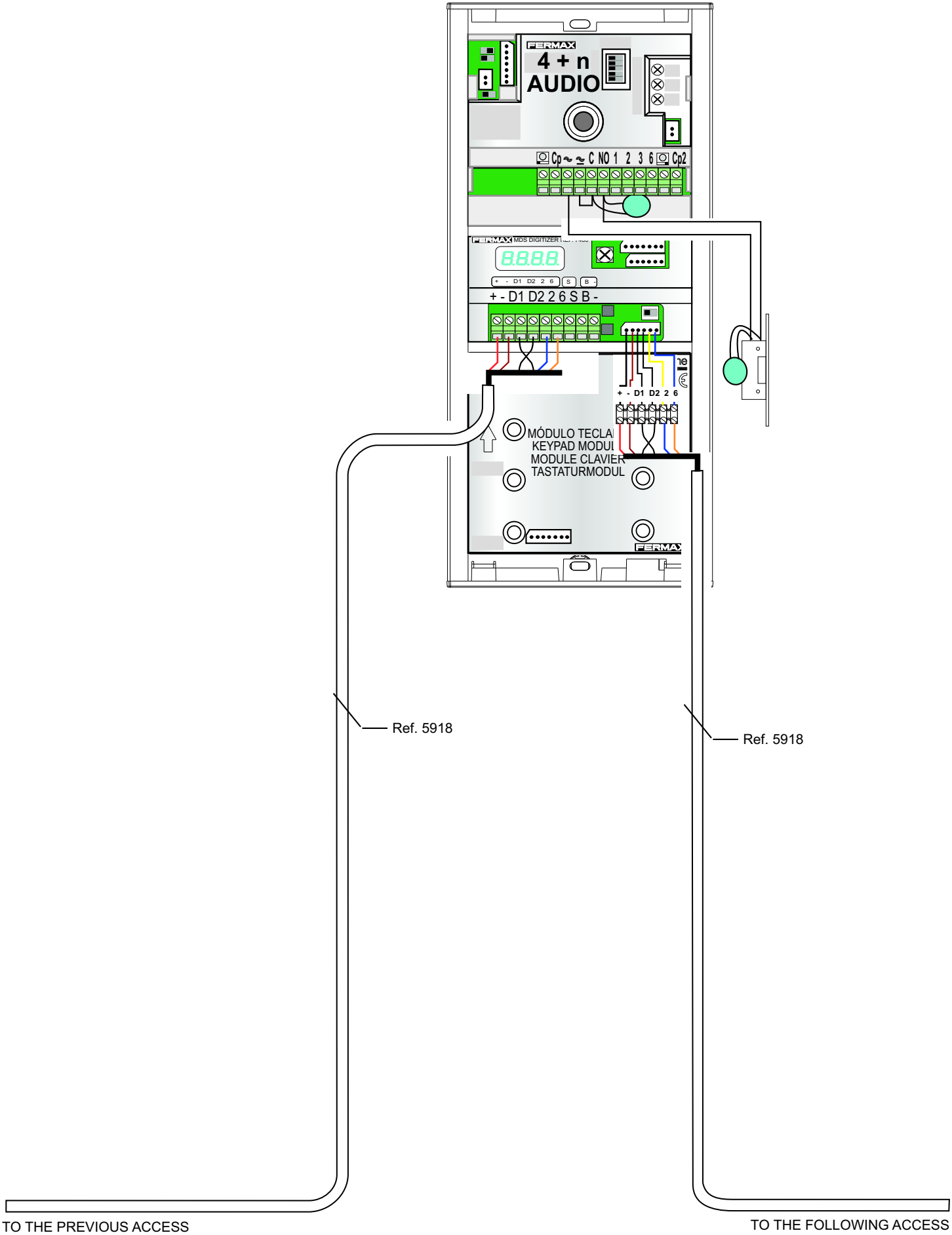



A LOS BLOQUES INTERIORES
TO THE PREVIOUS BLOCKS

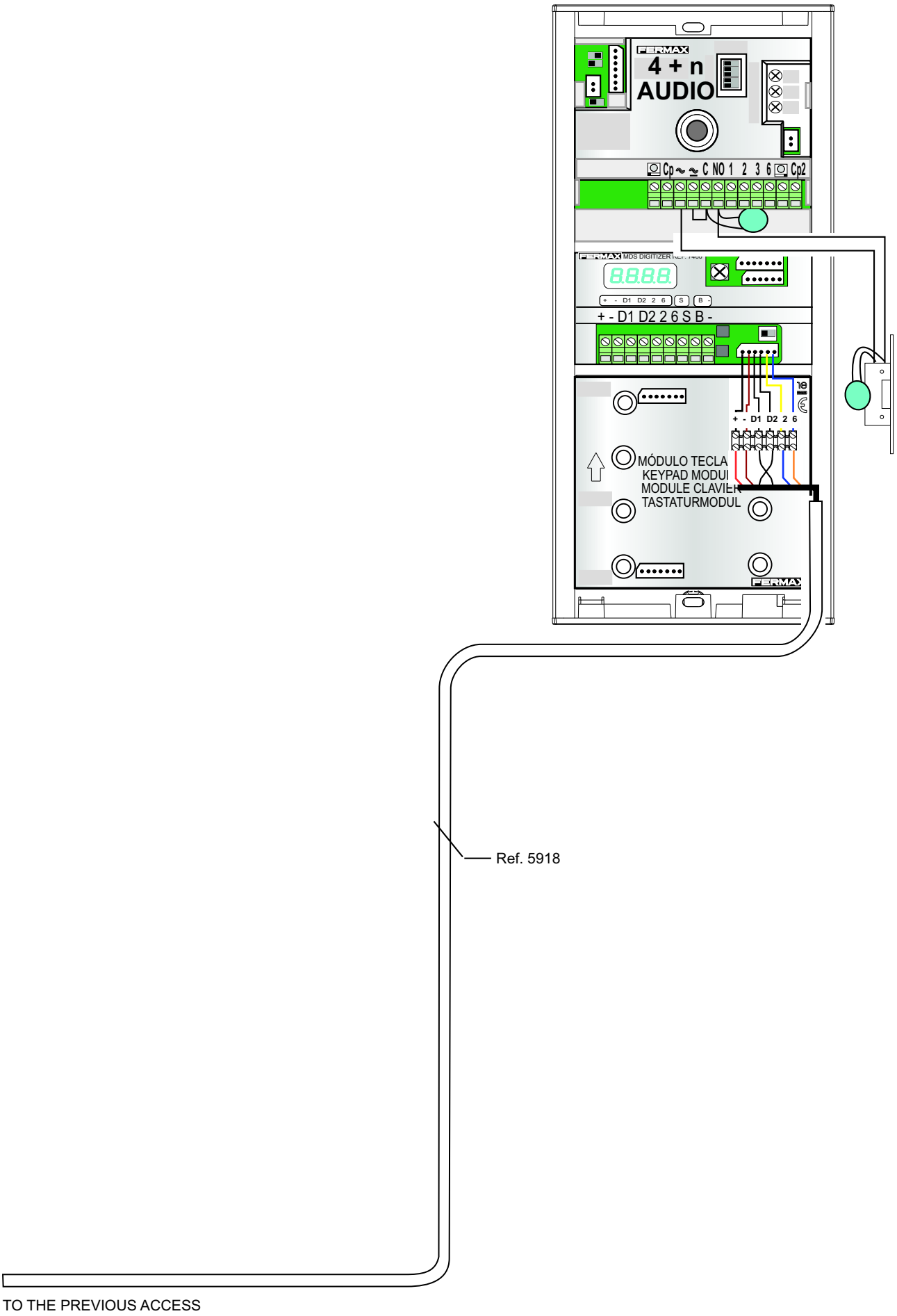
## *INSTALLATION WITH VARIOUS ACCESSES- FIRST ACCESS*



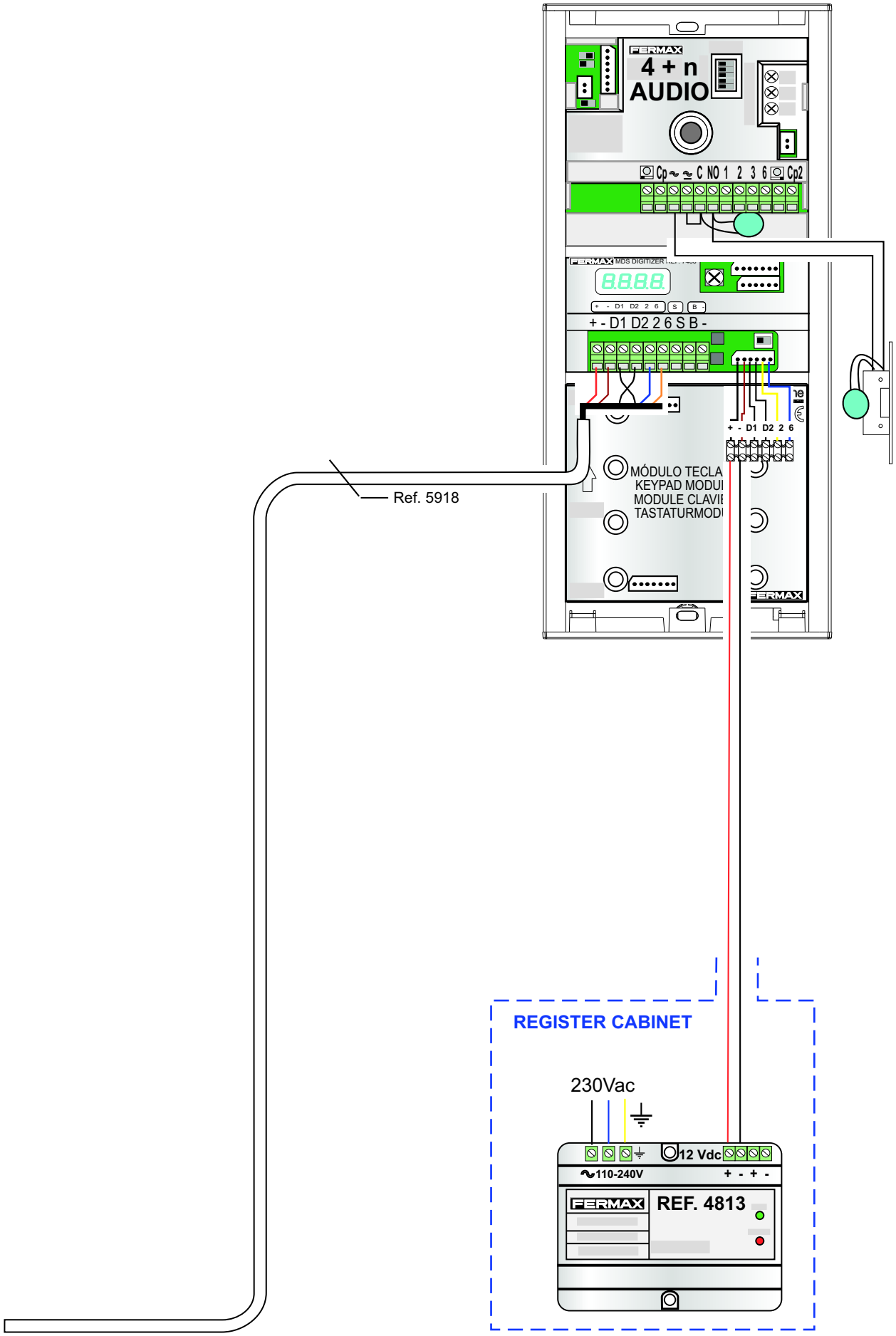
## *INSTALLATION WITH VARIOUS ACCESSES- INTERMEDIATE ACCESS*



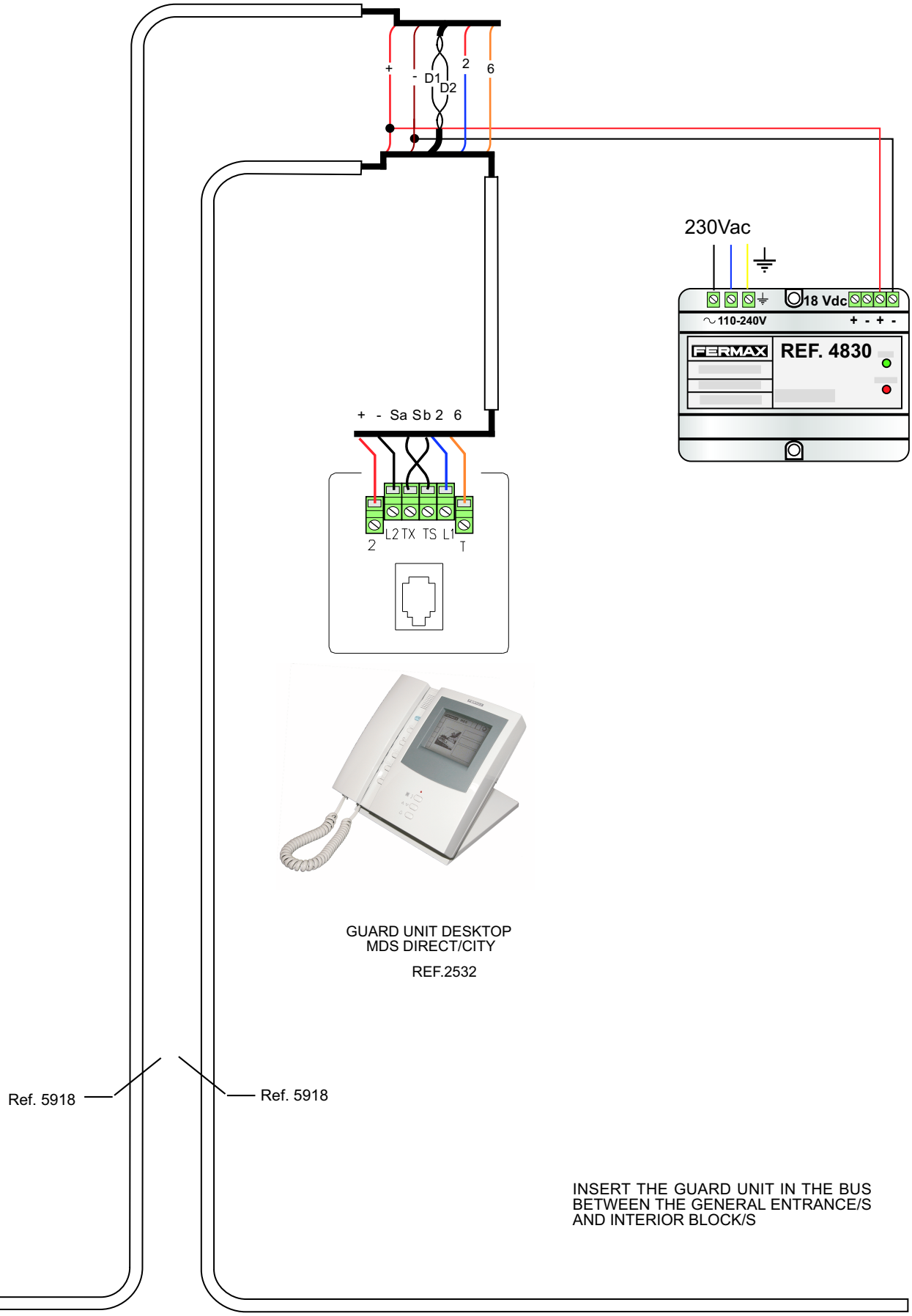
## *INSTALLATION WITH VARIOUS ACCESSES- LAST ACCESS*



## *INSTALLATION WITH A SINGLE ACCESS*



## *MDS DIRECT CENTRAL GUARD UNIT*




GUARD UNIT DESKTOP
MDS DIRECT/CITY

REF.2532

INSERT THE GUARD UNIT IN THE BUS
BETWEEN THE GENERAL ENTRANCE/S
AND INTERIOR BLOCK/S

# INTERIOR BLOCKS DIAGRAMS

## VIDEO MDS INTERIOR BLOCKS



## INTERIOR AUDIO MDS BLOCKS



## VIDEO VDS INTERIOR BLOCKS



## INTERIOR BLOCK AUDIO VDS

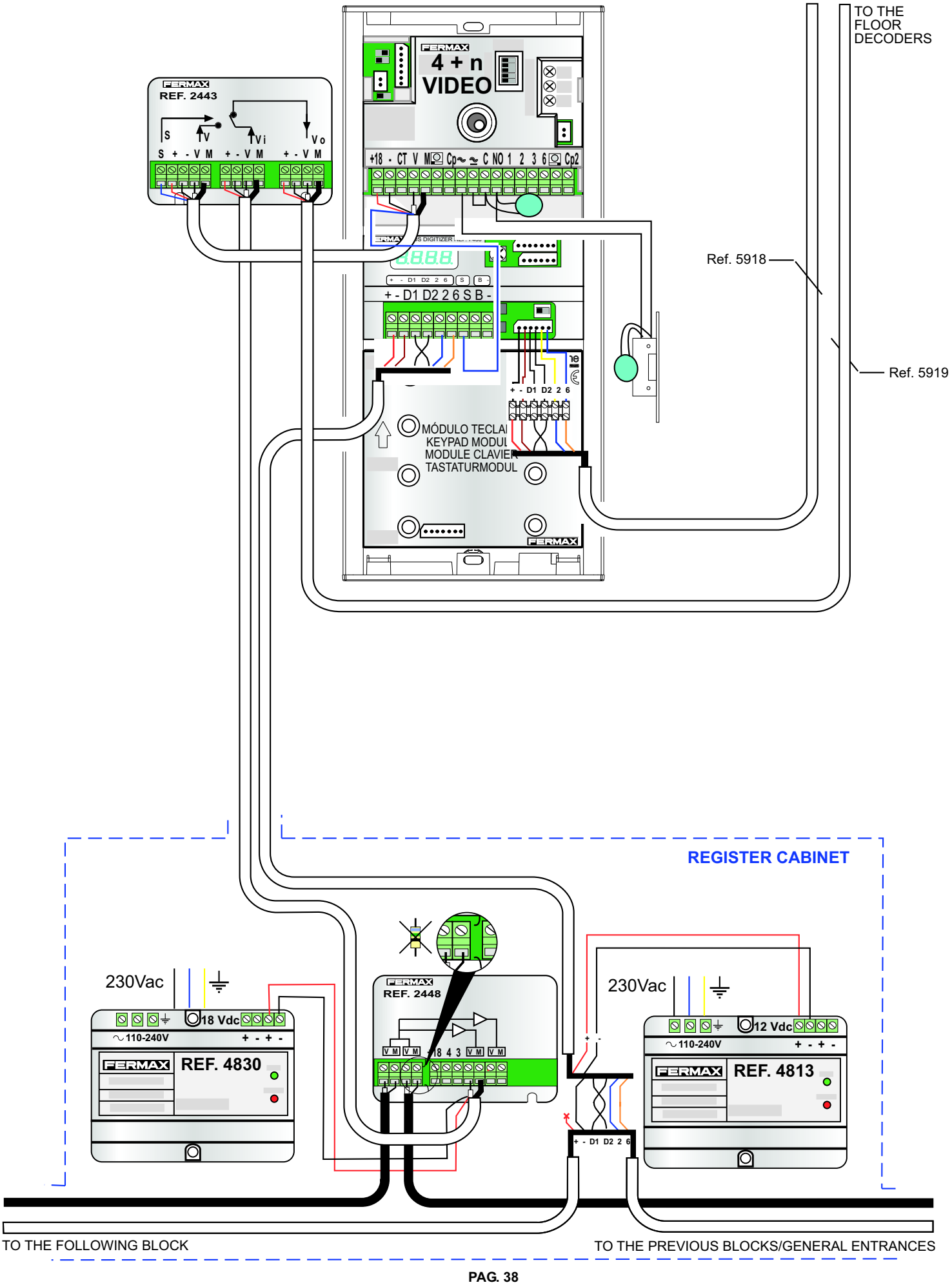


## SINGLE FAMILY HOMES WITH VIDEO VDS KIT

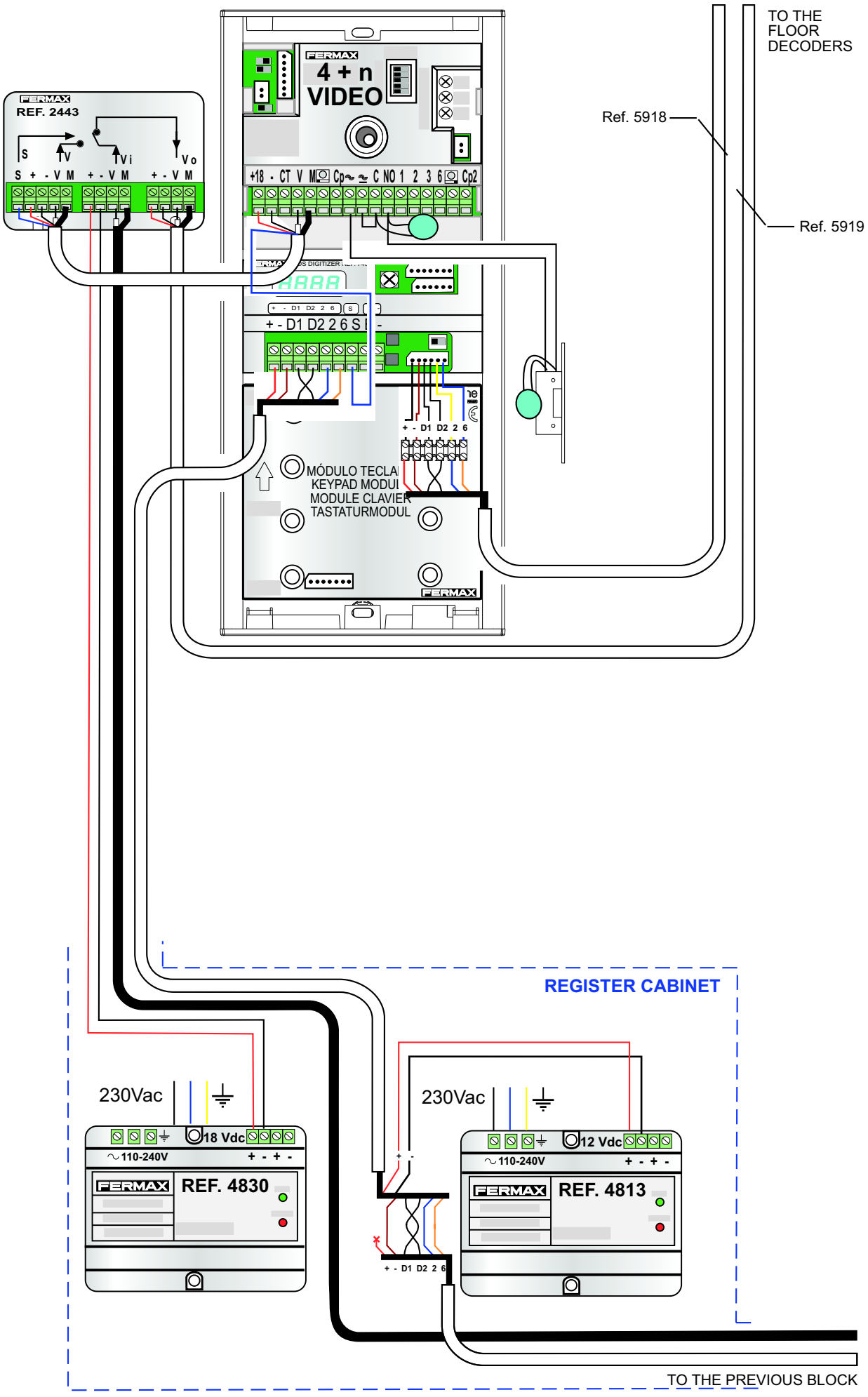


## SINGLE FAMILY HOMES WITH AUDIO VDS KIT

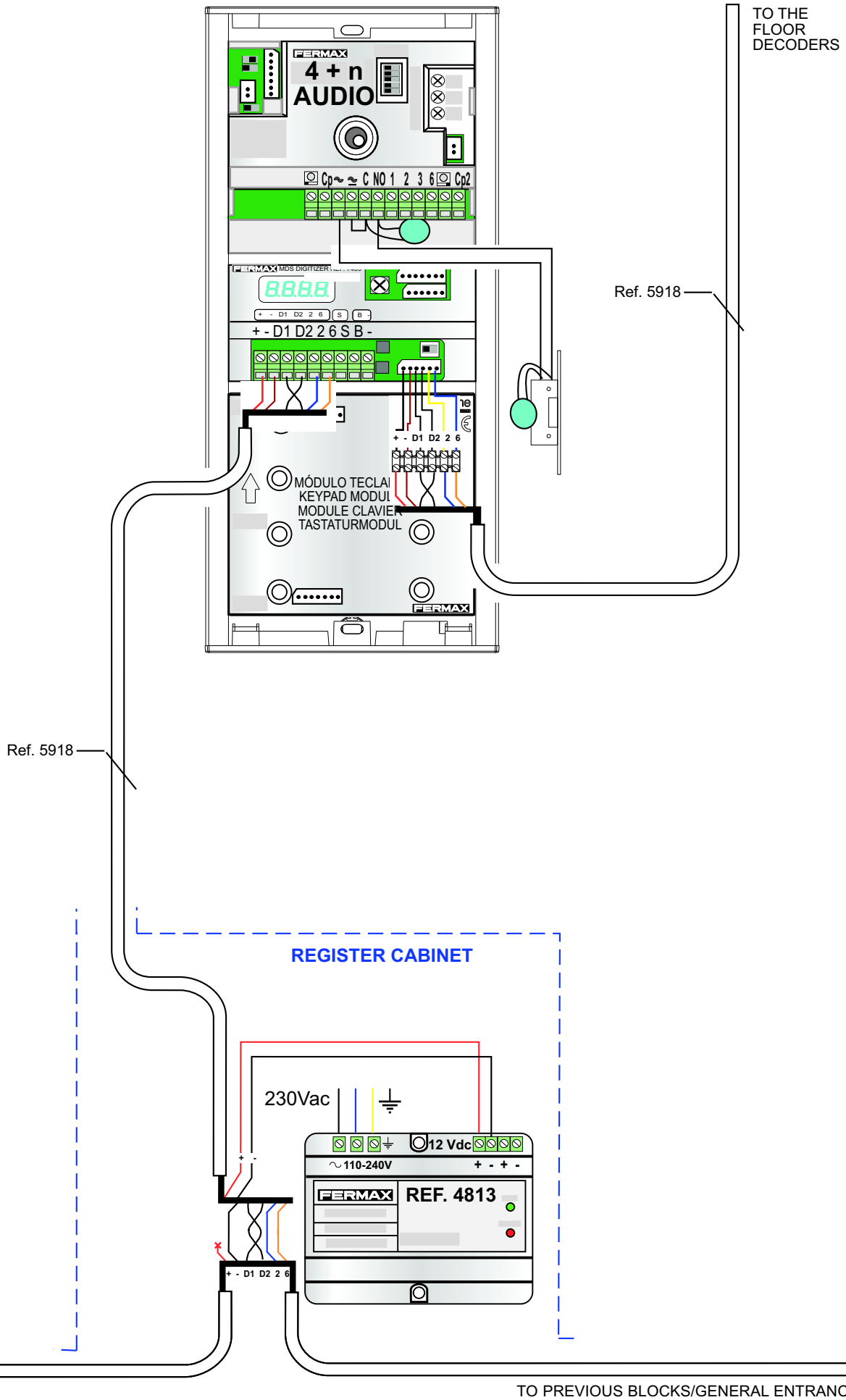
## *FIRST OR INTERMEDIATE BLOCK ACCESS*



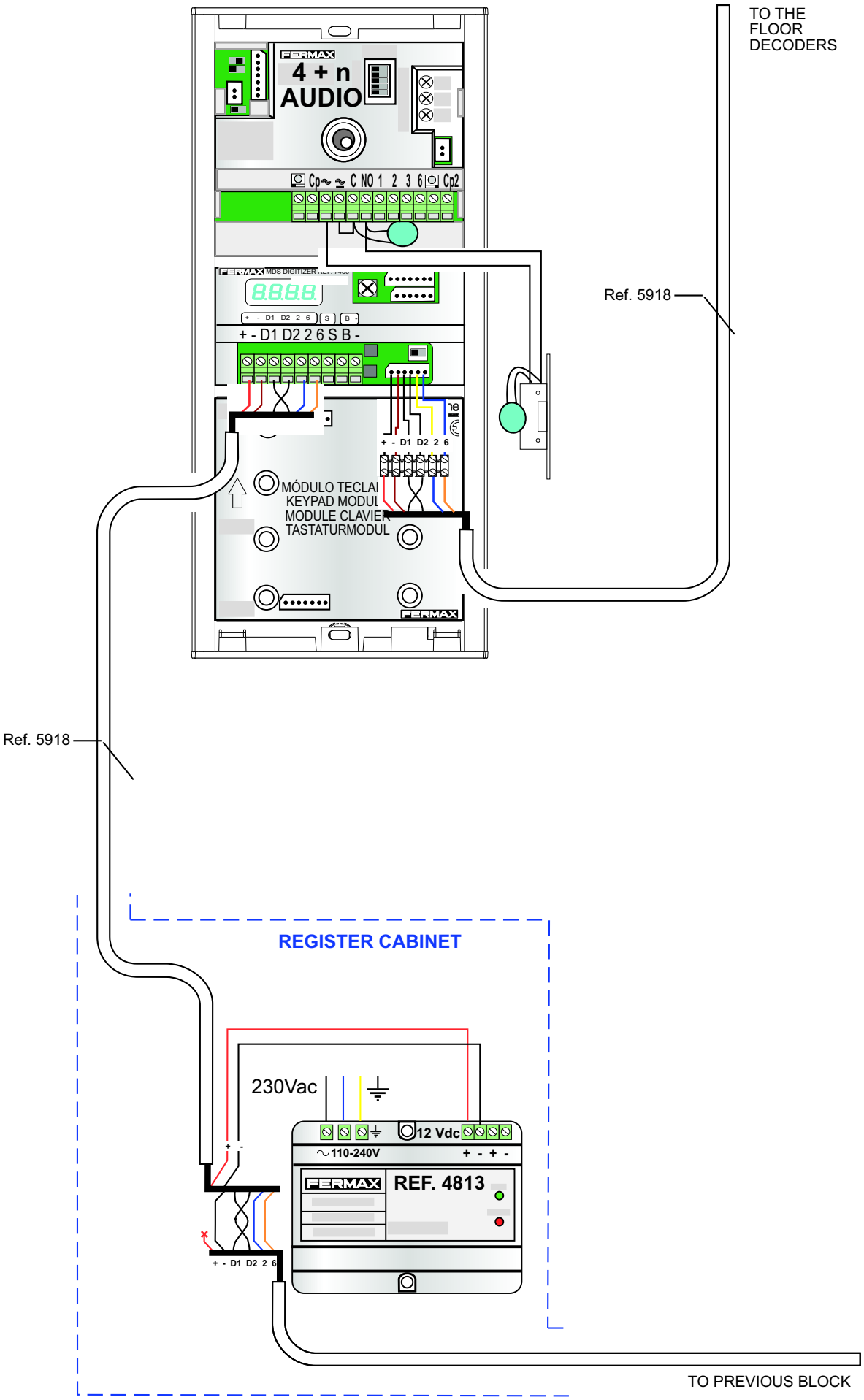
## *FINAL BLOCK ACCESS*



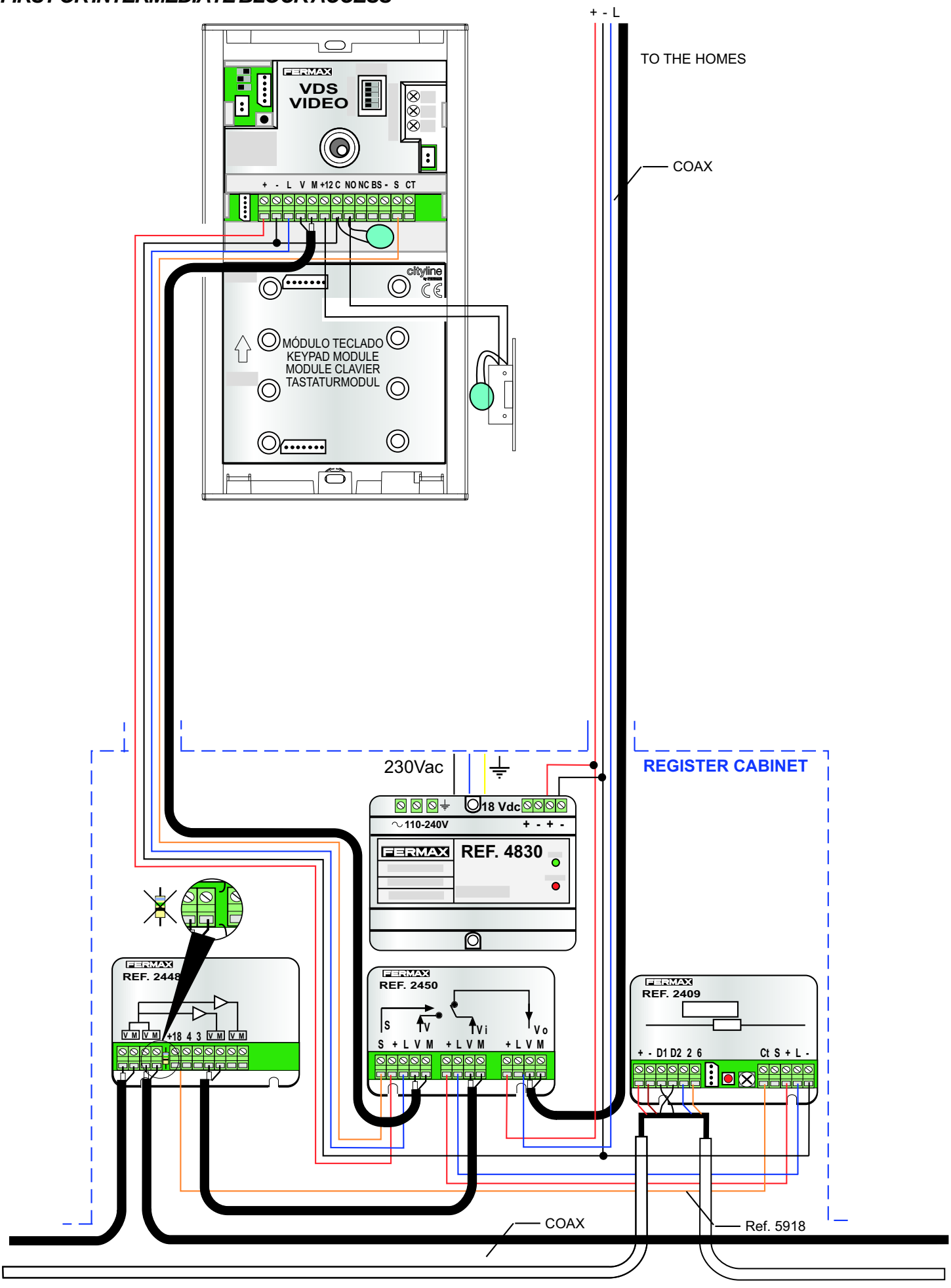
## *FIRST OR INTERMEDIATE BLOCK ACCESS*



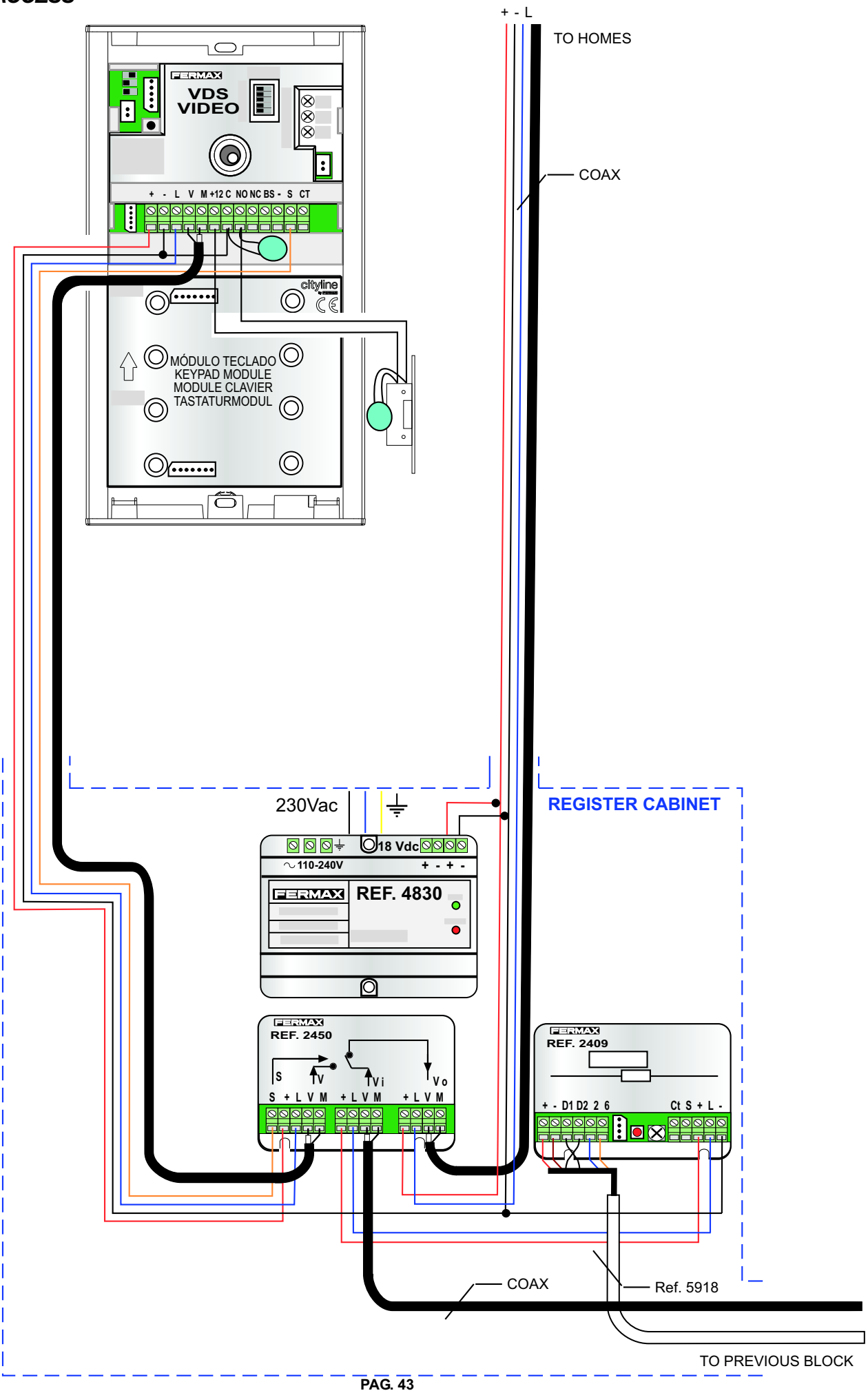
## *FIRST OR INTERMEDIATE BLOCK ACCESS*



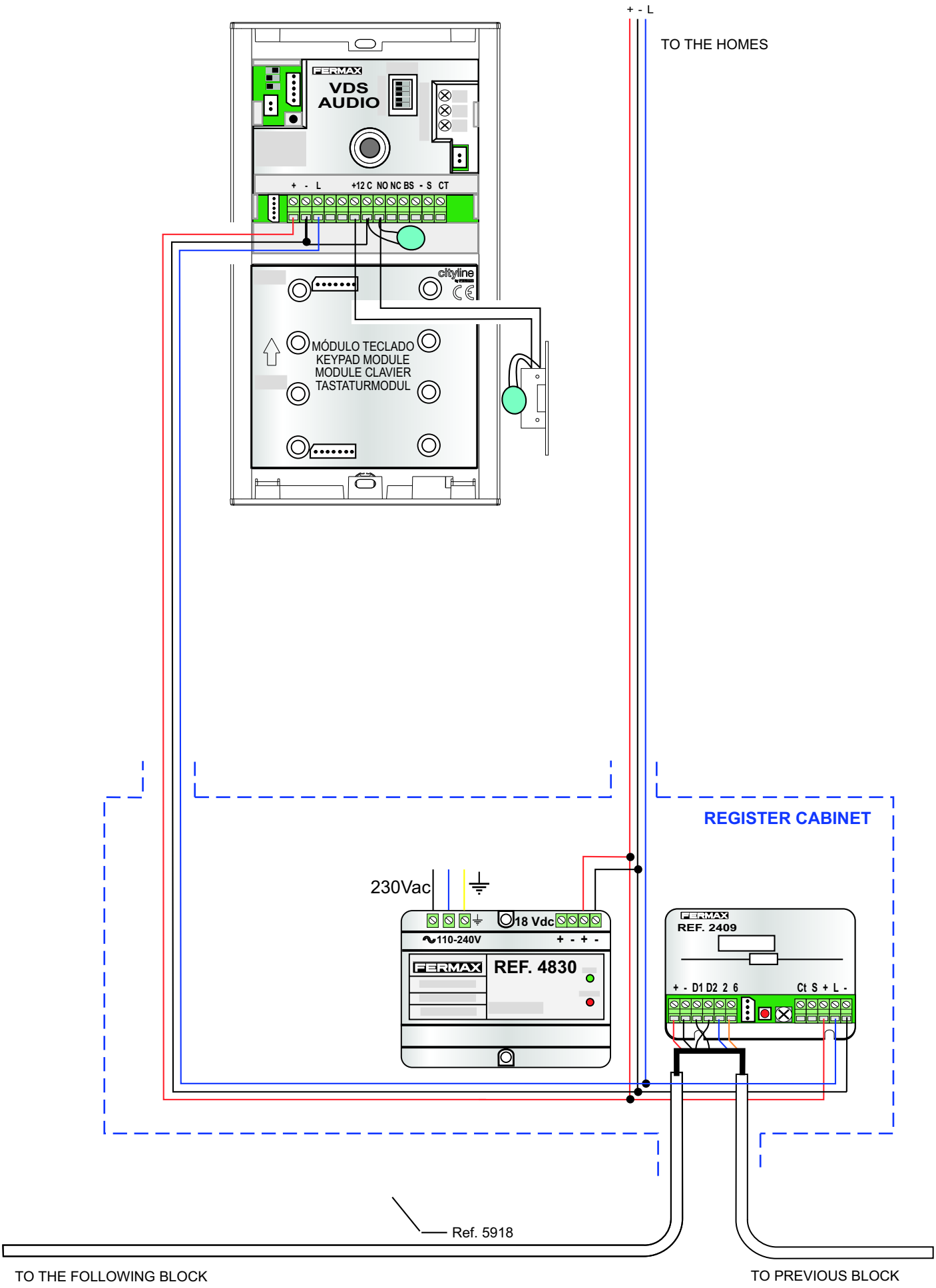
## *FIRST OR INTERMEDIATE BLOCK ACCESS*



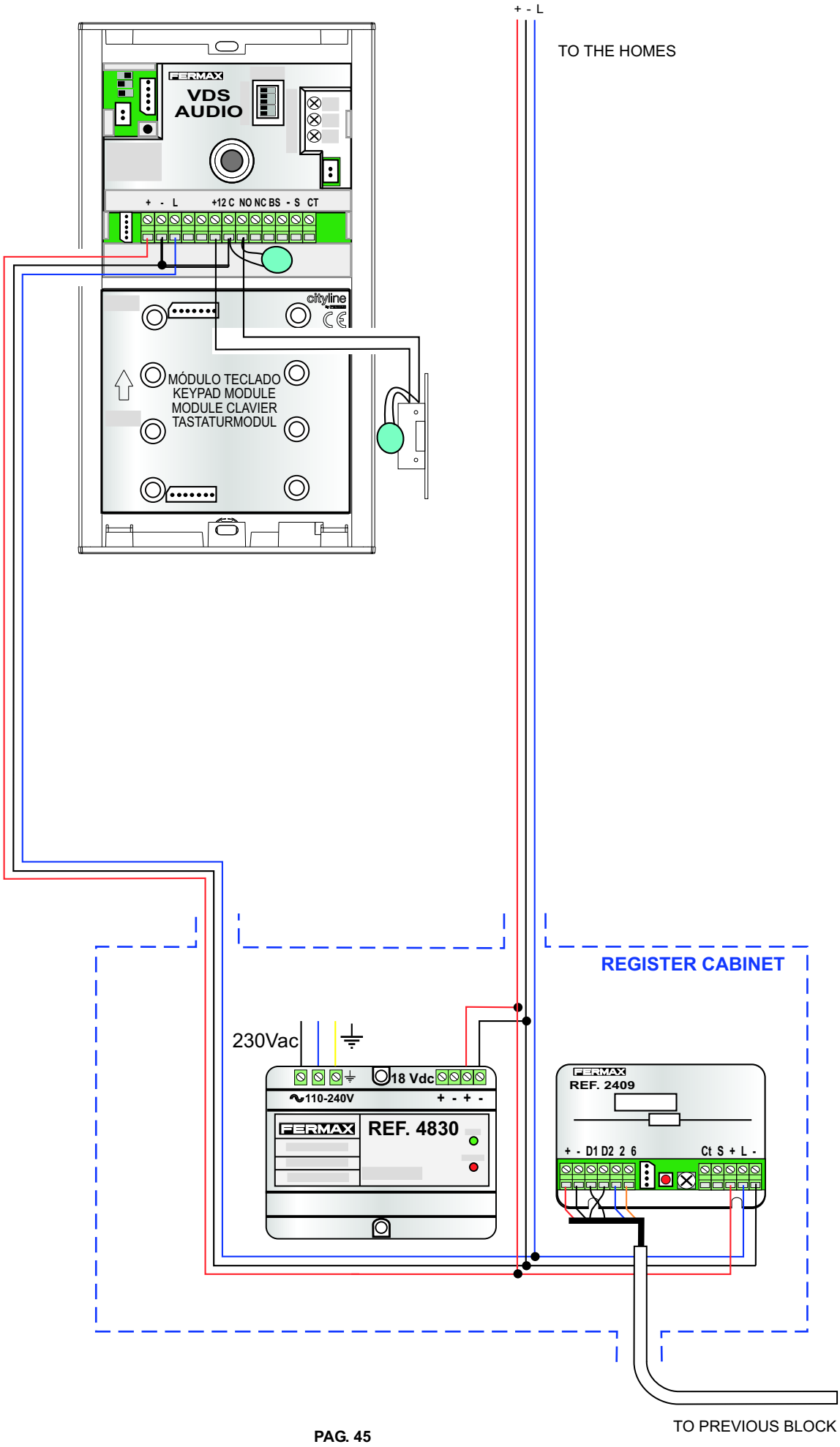
## *LAST BLOCK ACCESS*



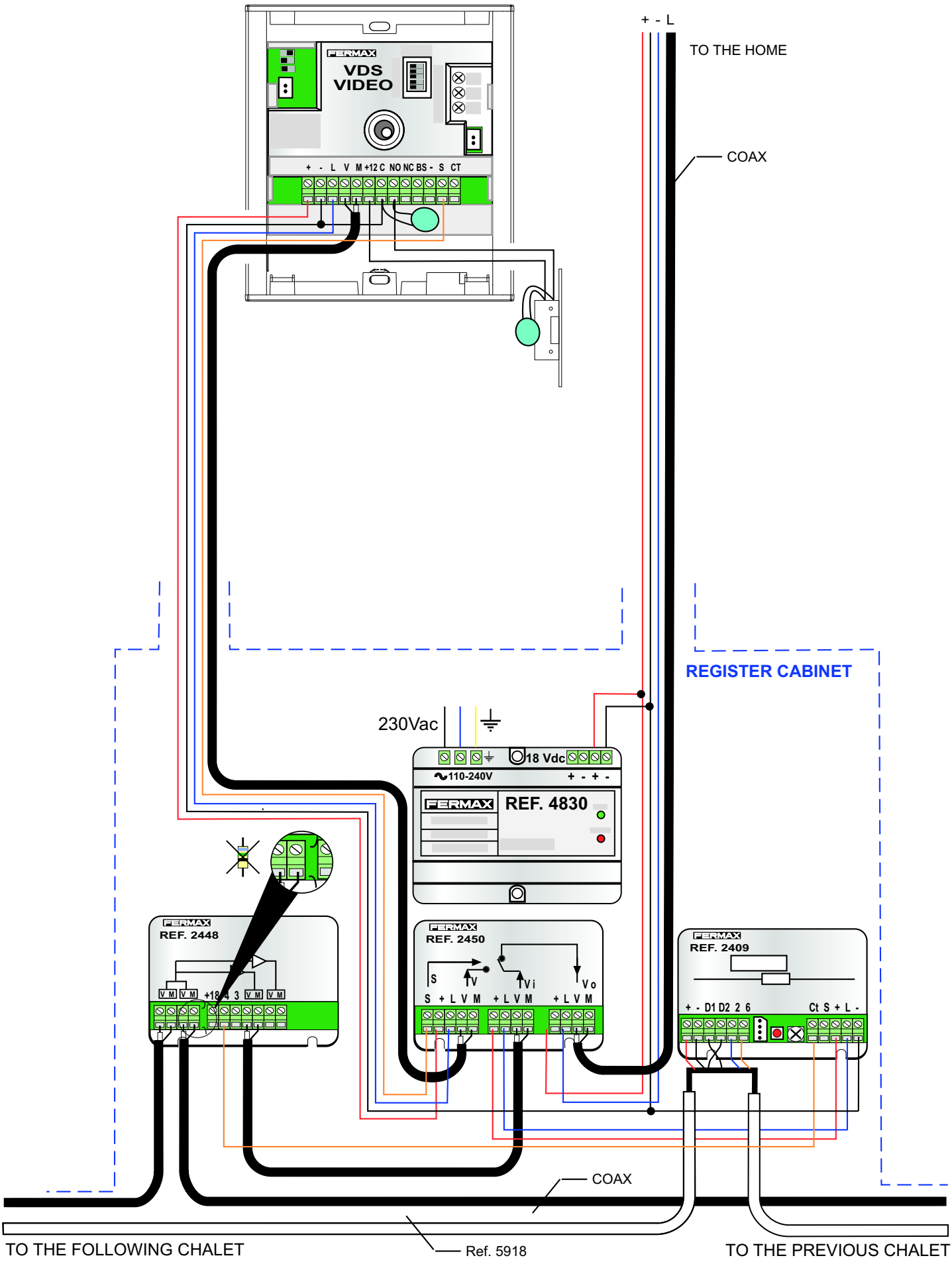
## *FIRST OR INTERMEDIATE BLOCK ACCESS*



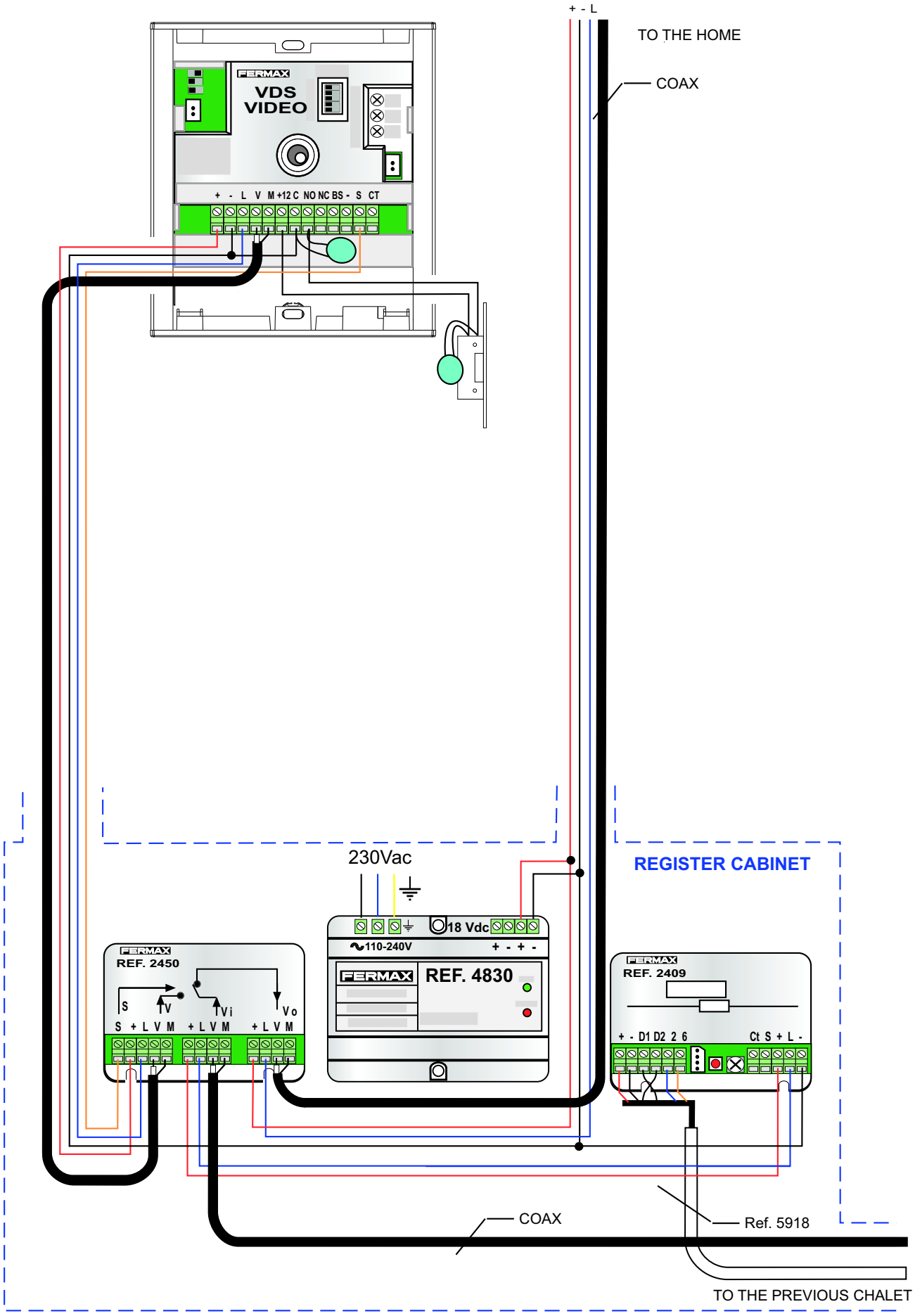
## *LAST BLOCK ACCESS*



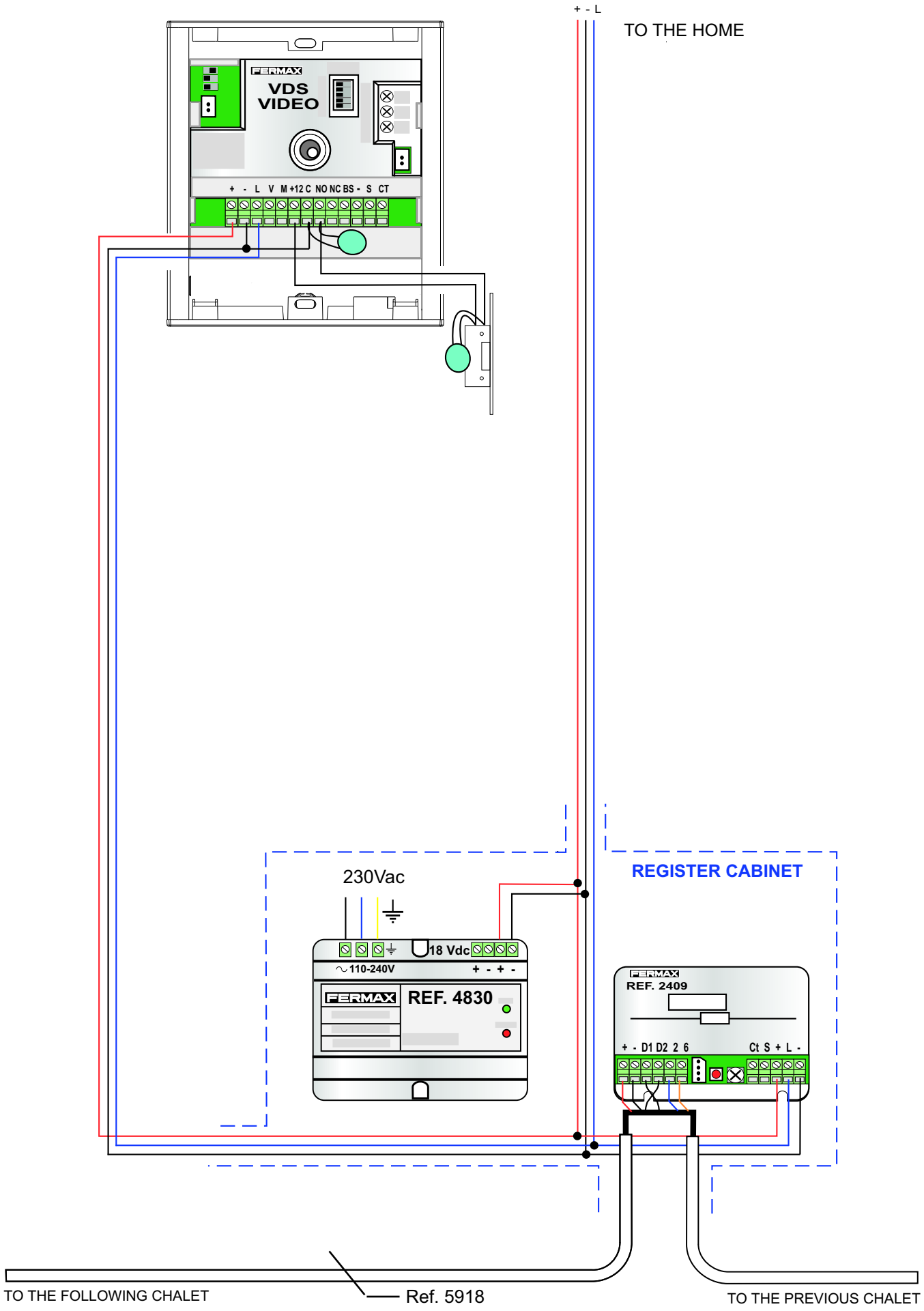
## *FIRST OR INTERMEDIATE HOME*



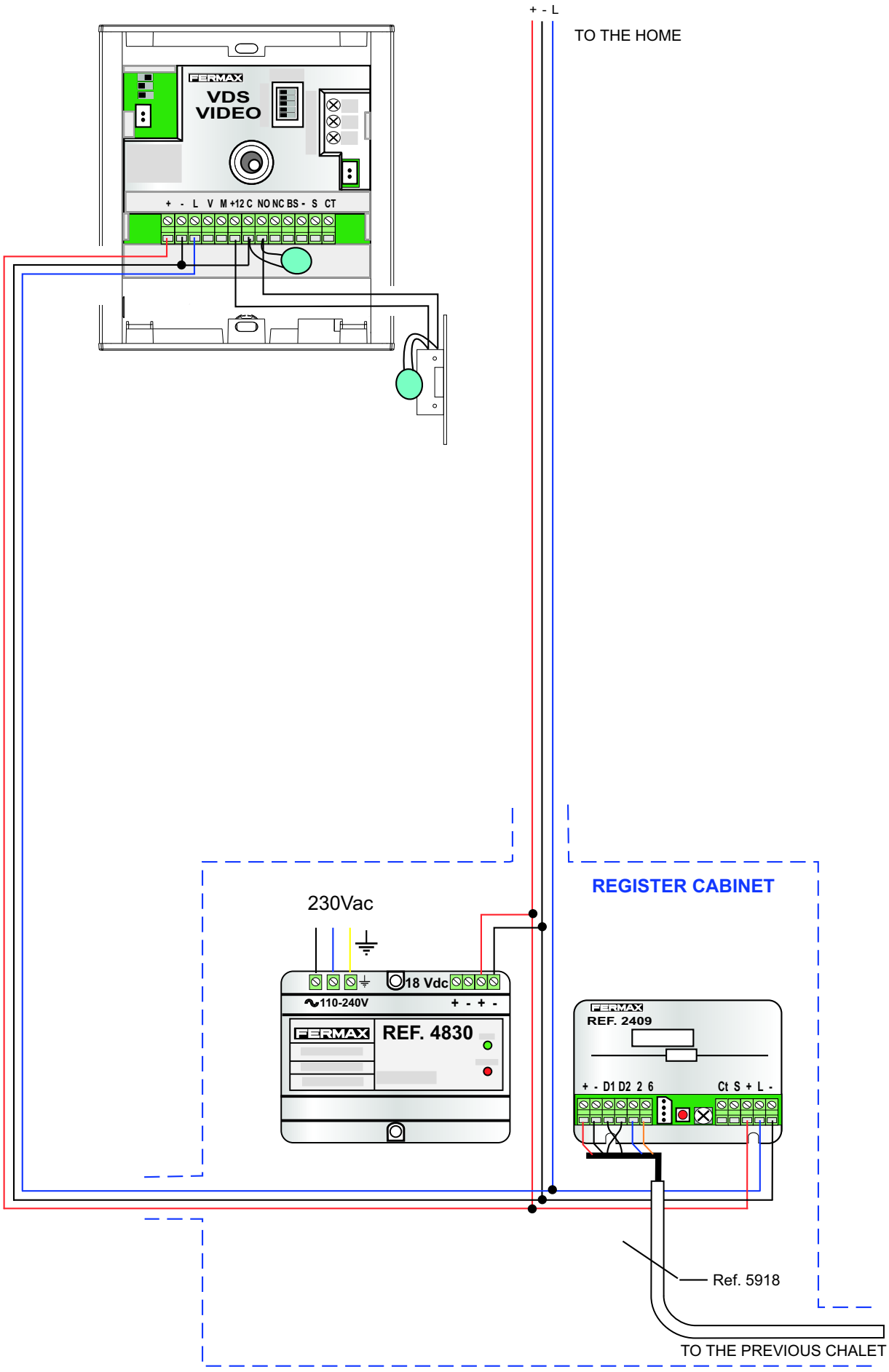
## *LAST HOME*


+ - L
TO THE HOME
COAX
FERMAX
VDS
VIDEO
+ - L V M +12 C NO NC BS - S CT
230Vac
REGISTER CABINET
18 Vdc
110-240V
+ - + -
FERMAX
REF. 4830
FERMAX
REF. 2450
S
V
Vi
Vo
S + L V M + L V M + L V M
FERMAX
REF. 2409
+ - D1 D2 2 6
Ct S + L -
COAX
Ref. 5918
TO THE PREVIOUS CHALET

## *FIRST OR INTERMEDIATE HOME*



## *LAST HOME*


+ - L
TO THE HOME
FERMAX
VDS
VIDEO
+ - L V M +12 C NO NC BS - S CT
REGISTER CABINET
230Vac
18 Vdc
110-240V
+ - + -
FERMAX
REF. 4830
FERMAX
REF. 2409
+ - D1 D2 2 6
Ct S + L -
Ref. 5918
TO THE PREVIOUS CHALET

# FLOOR DIAGRAMS

## VIDEO DISTRIBUTION



## CASCADING INSTALLATION

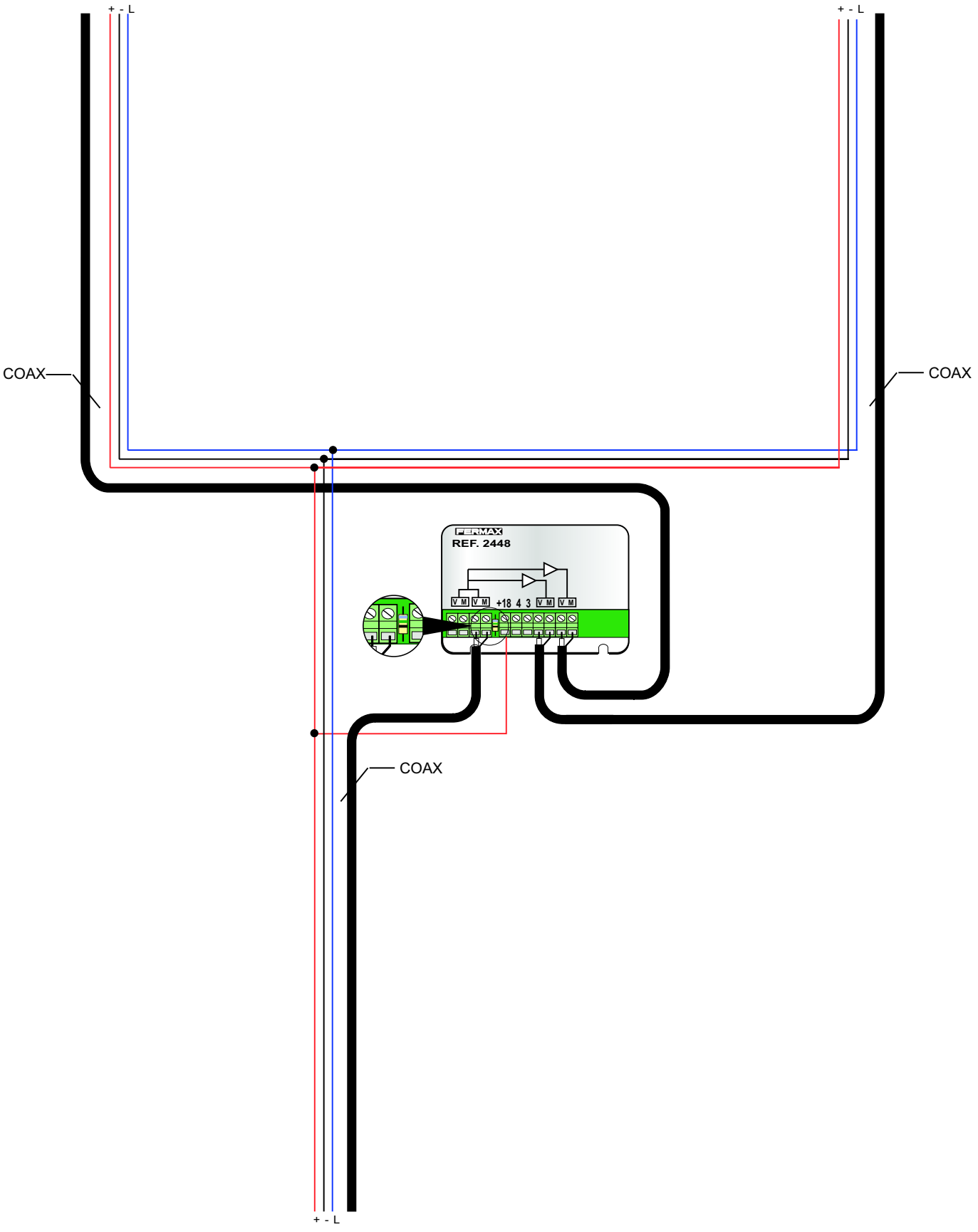


## INSTALLATION DISTRIBUTED BY FLOOR

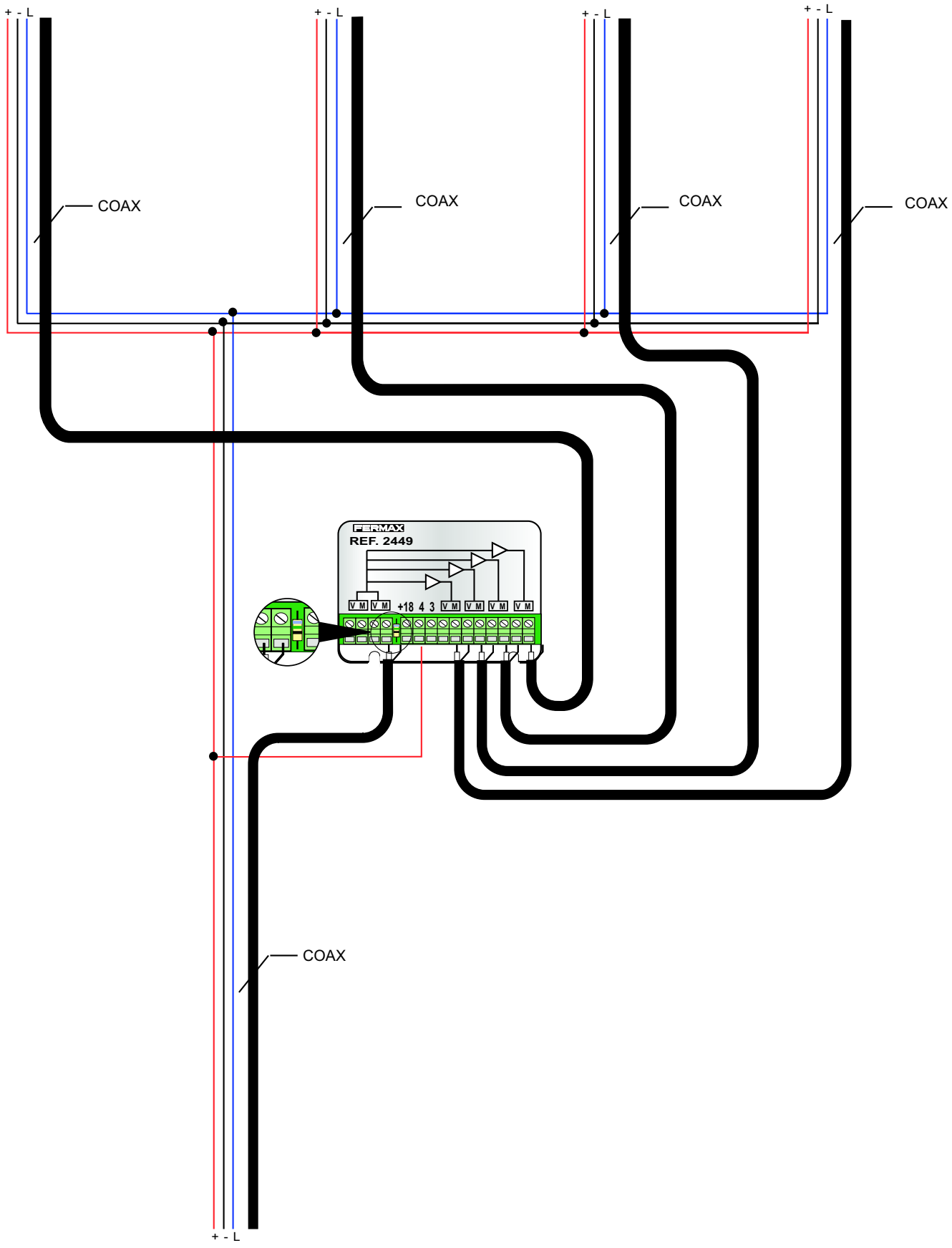


## INSTALLATION WITH MDS DECODER

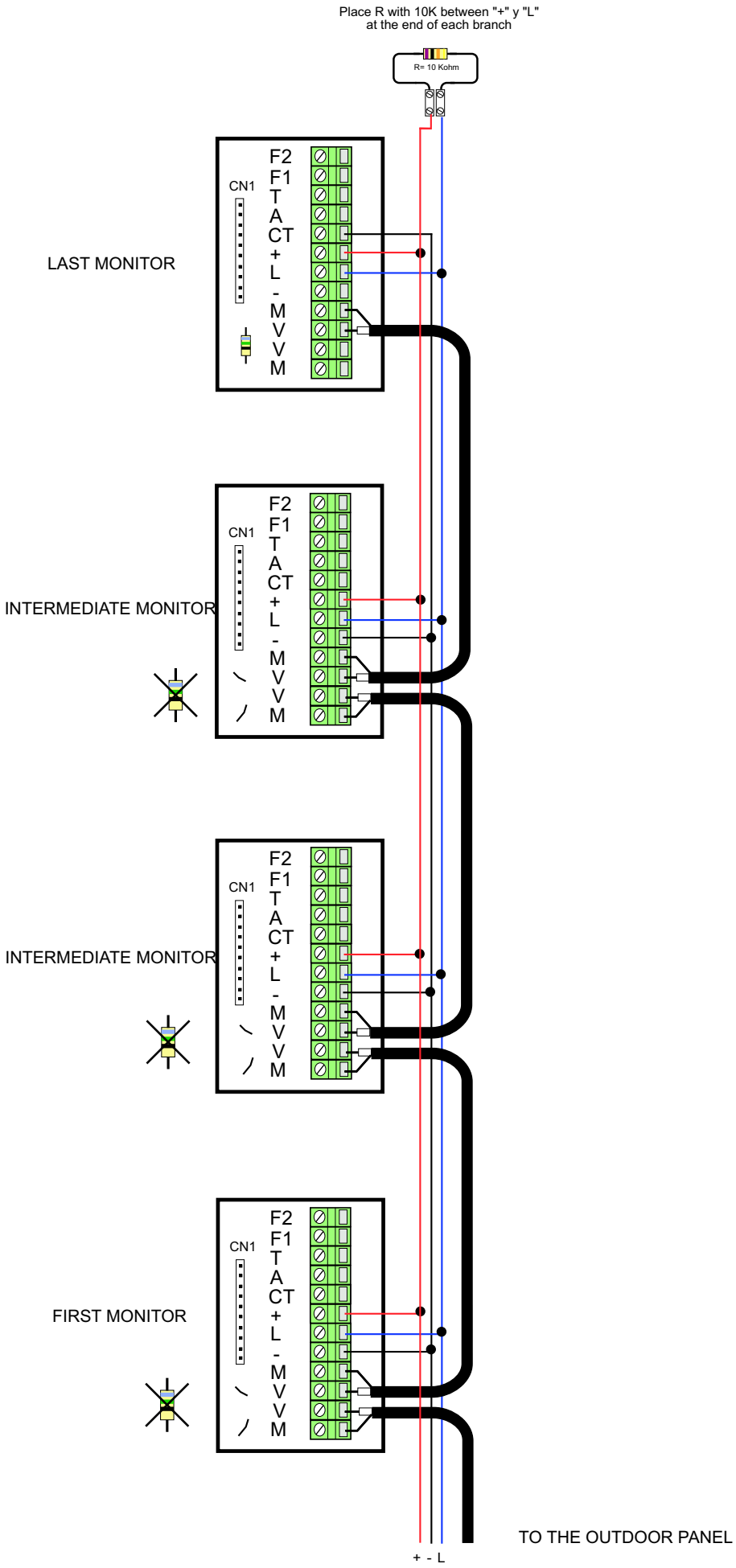
## 2 BRANCH DISTRIBUTION



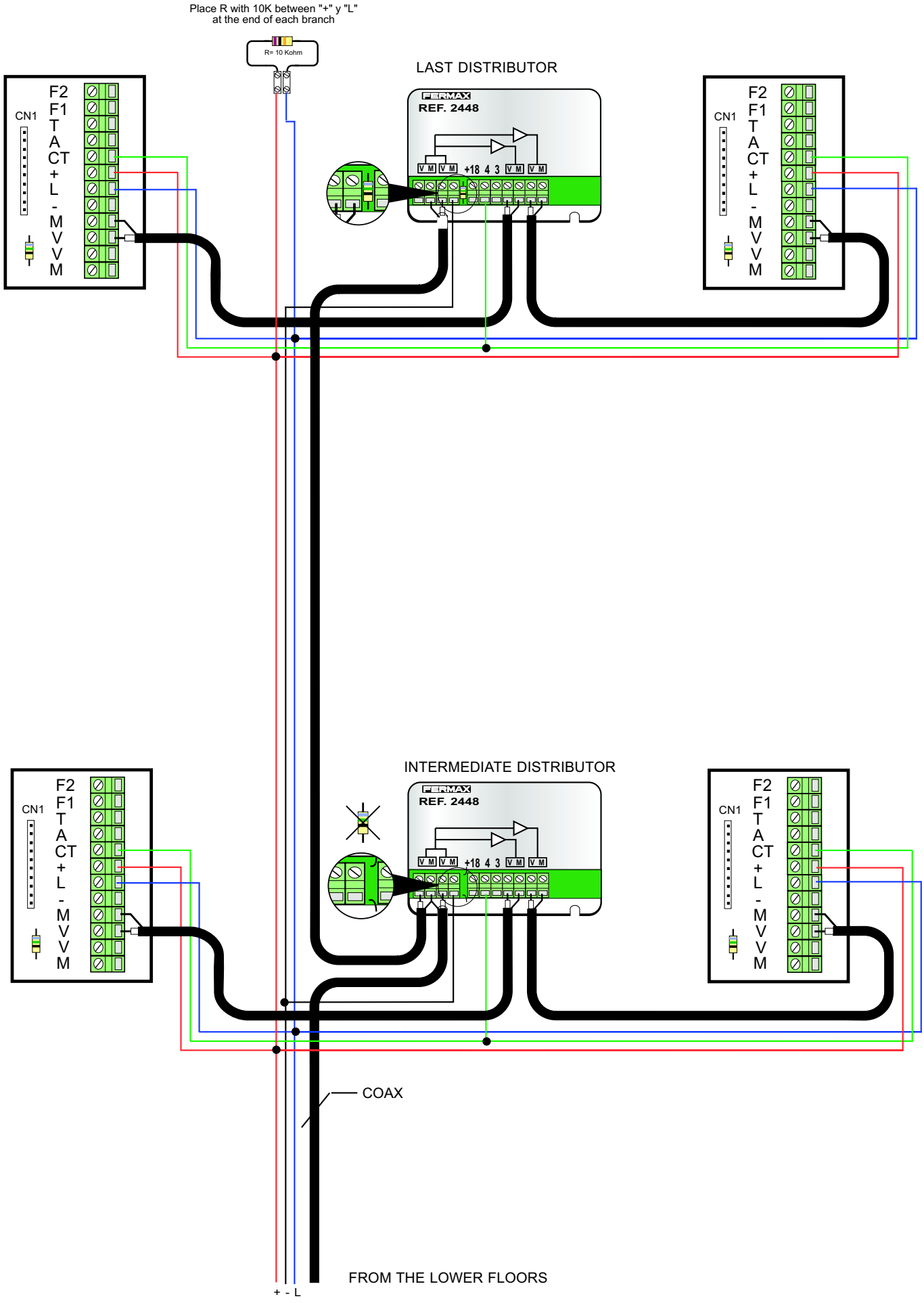
## *4 BRANCH DISTRIBUTION*



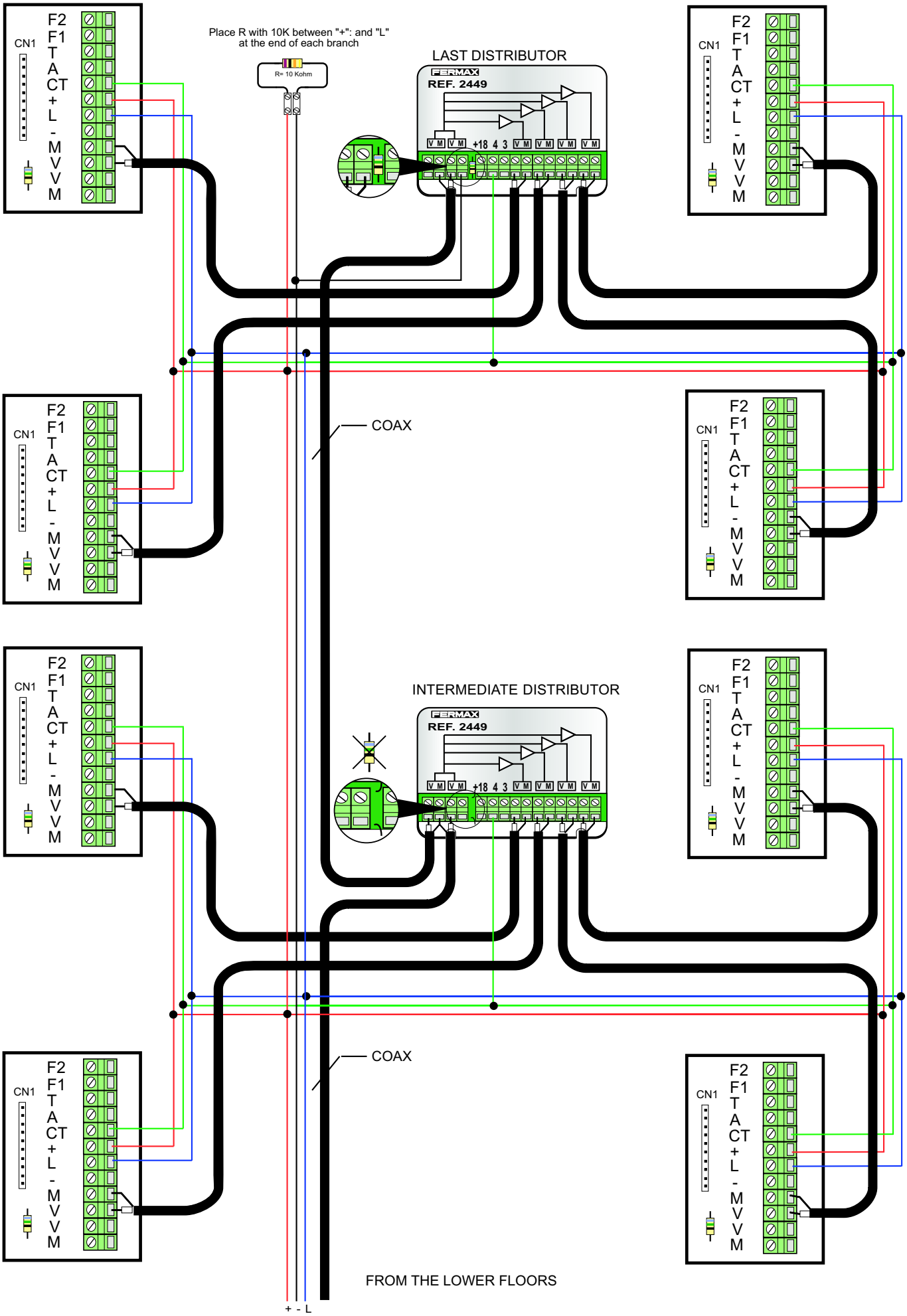
## *MONITORS IN CASCADE*



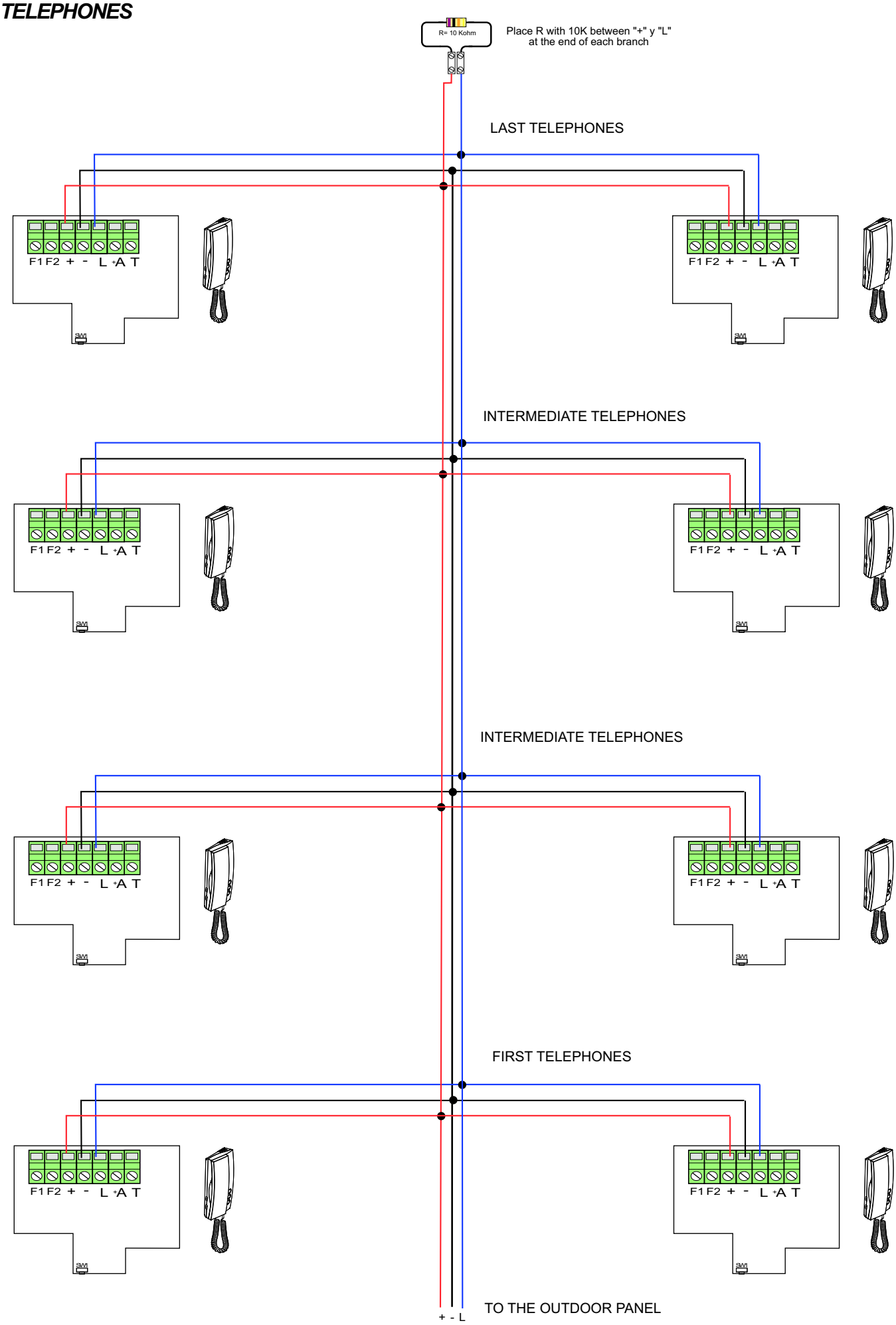
## *VDS MONITORS WITH 2 OUTPUT DISTRIBUTORS*



## VDS MONITORS WITH 4 OUTPUT DISTRIBUTORS



## *VDS TELEPHONES*



## *MDS DECODER WITH MONITORS 4 +n*