13. QUICK PROGRAMMING GUIDE

1) Install the sensor and connect it to the unit control.
   To connect properly the sensor to the unit control, please see section **Nº.1** (Installation)

This section is to knows quickly the keys of this unit.

a) To find the parameter that is wanted to change press successively **MENU** and to accede
to the parameter press ➡

b) Modify using this keys ➡ ⬆

c) To save the data press 2 times **MENU**

2) Before to start to calibrate the unit control, please be advise to do the following:
   1. Down the cabin to the lower plant of the building. (or in the half of the itinerary)
   2. Bounce inside the cabin to avoid possible hooks on the guide rail.

3) Most important parameters to calibrate step by step:

   1º. **Set the Zero** of the unit with the empty elevators:
   - Situate in the parameter `CEro`
   - Press ➡ **MENU** and will start to count-down.

   2º. **Adjust of the Weight (Peso):**
   - Put a well known weight inside the cabin (at least **50%** of the complete load)
   - Introduce in the parameter `PESO` the value of the load that has been placed
     in the cabin using this keys ➡ ⬆ then to save it press **MENU** 2 times and
     the unit will start to count-down.

   3º. Put in `AL C` the value of the load, starting from which is required to
      activate the alarm of **complete load**.   (Example: 100% of the nominal load)

   4º. Put in `AL S` the value of the load, starting from which is required to
      activate the alarm of **overload**.   (Example: 110% of the nominal load)

   5º. Put in `AL A` the value of the load, starting from which is required to
      activate the alarm of **auxiliary** (In case if your going to use like for **example:**
     to activate a buzzer or to detect a minimum load like the weight of a child).

Note: It is important to calibrate the ***setting of zero*** before doing the operation of the
       adjust of weight.
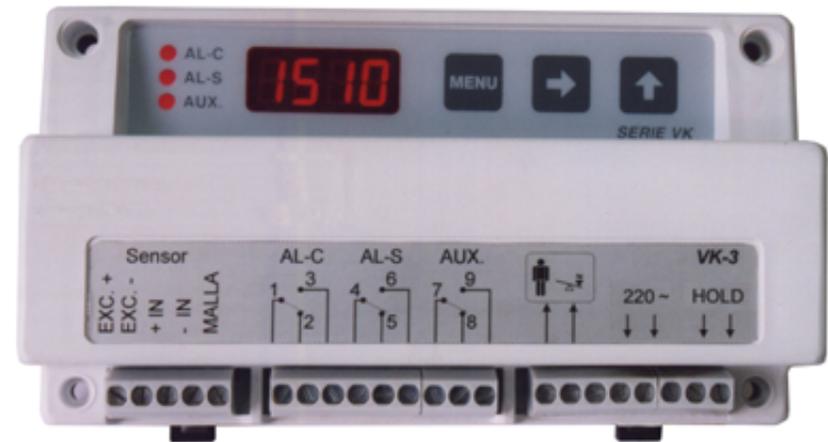
8. Auxiliary Functions

$\boxed{\text{CAdE}}$ Option of the chain compensation.This option allows to compensate the difference of weight between floor taken place by the chain. To use this option it is necessary to introduce the approximate weight of the chain, keeping in mind that the allowed maximum value is 50kg. In the event of putting it to zero the chain compensation will be annulled.

$\boxed{\text{ConF}}$ Allows to configure the output of cabin display and the condition of the relay:

Configuration	State of Relay	Display Output
ConF = 0	ON	Intermittent activation (LED)
ConF = 1	ON	Progressive activation (MB-D)
ConF = 2	OFF	Intermittent activation(LED)
ConF = 3	OFF	Progressive activation (MB-D)

$\boxed{\text{CLAu}}$ **Key** to protect the parameters for a possible modifications. Normally the unit comes out from the factory with the key of **0000**, that allows a free access to modify the parameters.

-In the case of putting another key different from **0000**, the access to modify the parameters is protected.(its highly recommended to remember your key)

-If the unit is protected with a key. And once entered in the menu the display $\boxed{\text{CLAu}}$ presents intermittent to request us the keycode. It is necessary to introduce the key at this time, if we wants to modify some parameter.

-To introduce the key, while $\boxed{\text{CLAu}}$ is in intermittent, press the key ➡ and a number will appear that it is necessary to substitute for the correct key.

Note: If you don't remind the key that you put on, write down the number that appears and ***call the supplier***, it will indicate you the right key.

9. Mode of low consumption

As the display is the most that consumes and it is not an element that is visible.

It has been keep in mind a way of a low consumption, that once the display turns off automatically, the display presents a rotating segment to indicate that it is continuously working.

Cases that the unit enters in the function of low consumption.

1) When connecting the unit to the power supply, it presents the weight during 3 minutes. And in the event of not playing any key, automatically it will pass to the mode of low consumption.

2) When it passed one hour since the last time that having played the key.

3) When the unit is presenting the weight, pressing the key 🔲 during two seconds.

Note:To leave the function of low consumption it is necessary to press any key

3. Keys of access to the parameters of menu's

The unit has a menu to accede to the adjustment of the parameters.

🔲 Pressing this key successively, will go going to all programmable parameters of the menu in a cycle way.

To return to the visual presentation of weight, press the key several time till to arrive at the end of the menu, or just press it during 2 seconds.

Note: If when entering in the menu appears $\boxed{\text{CLAu}}$ in intermittent, the unit has set a key and it is necessary to introduce your keycode in this moment in order to modify the parameters.

➡ Pressing this key enters in the selected option and once inside we will be able to select the digit to modify.

Note: In the event of not being able to enter, it means that the key is protected. And it is necessary to introduce your keycode.

See section Nº.8 (Auxiliary functions $\boxed{\text{CLAu}}$)

⬆ Pressing this key will modify the selected digit.

Also by pressing this key when you are located on the selected parameter, the display presents its content.

Note: 1)The only content that you'll not see is the parameter $\boxed{\text{PESO}}$

4. Modification of the parameter

1)Go pressing the key 🔲 successively until being place on the desired parameter.

2) Press the key ➡ to enter in *modification of the parameter*, being the left digit in intermittent.

3) Put in the display the wanted value, using this keys ➡ ⬆

4) Press 🔲 2 times to save the assignated value. Then the display will present the next parameter.

Notes:

a) If you haven't press the 🔲 for the 2nd time, the operation will not stored,and the display presents again the parameters that you was modifying.

b) To modify the parameters $\boxed{\text{PESO}}$ y $\boxed{\text{CEro}}$, please consult section **Nº.6**

(Calibration of the unit)

1. Installation

Load cell

Cabin display
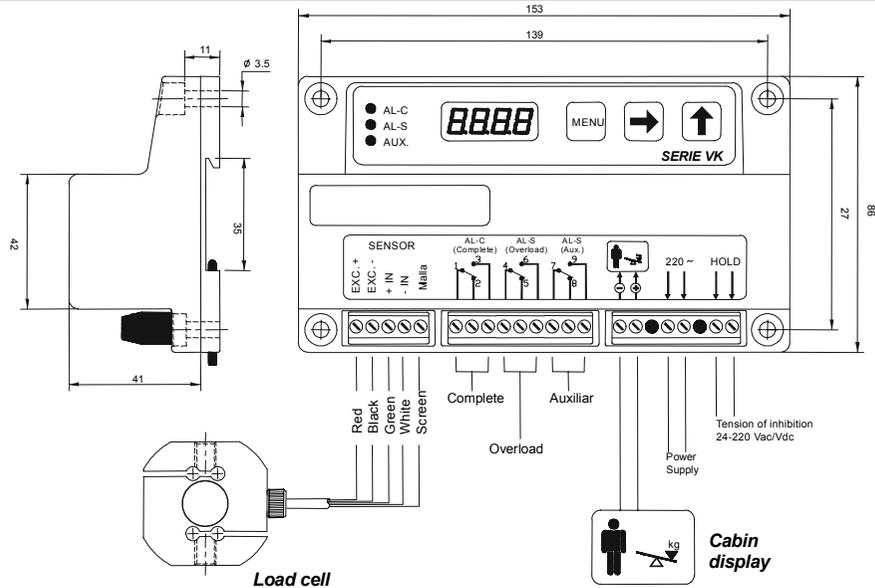
2. Description of the connections

AL-C (Relay contact of the Complete load)
Change of the state if the load programmed in the parameter $\boxed{AL\ C}$ is overcome.

AL-S (Relay contact of the Overload)
Change of the state if the load programmed in the parameter $\boxed{AL\ S}$ is overcome.

AL-A (Relay of the Auxiliary)
Change of the state if the load programmed in the parameter $\boxed{AL\ A}$ is overcome.

Note: The state of rest of the relay can change in the parameter of $\boxed{ConF}$

HOLD (It is activated with a tension between 24 & 220 V alternating or continuous).
When the elevator is in progress, the measure of the weight is not good.The relay could be activated & the cabin display turns unstable.

Activating the entrance of **HOLD** when the elevator get in movement.The measure of weight is blocked,*then the display presenting in intermittent*, & the relay together with the cabin display conserves its state until this entrance is disabled, that should be after stopping the elevator.

OUTPUT OF CABIN DISPLAY

It can give two types of output,that which you can select it on the parameter $\boxed{ConF}$
  a) Output that is activated in an intermittent way when an overload takes place. The output has polarity, & it can be valid to activate a led and a buzzer (continuous current 7,5V máx.75mA).
  b) Activation of progressive display MB-D (connection of two threads without polarity).

10. Electrical Characteristics

Model: **VK-3**.
Nominal tension: **220V**.
Nominal current: **60mA.**
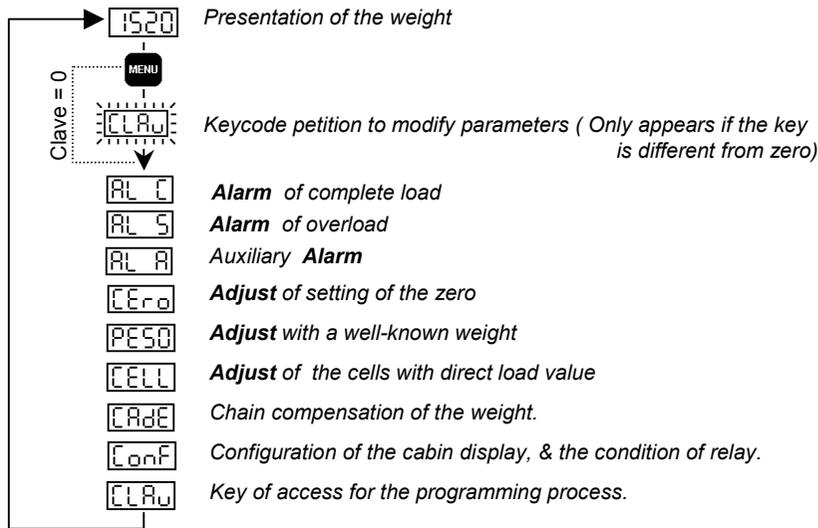Nominal frequency:**50-60 Hz.**
Fuse: **100mA.**

11. Change of the fuse.

1.)Disconnect the unit
2.)Open the unit removing the 5 screws that hold the back cover.
3.)Take out the circuit of the box, and change the fuse that is in the vertical free mounting fuse holder located next to the transformer.

12. Presentation of Errors.

$\boxed{Err1}$ Load cell not well connected, damaged load cell or cut cable
   - Revise the connection of the load cell.

$\boxed{Err2}$ Negative Overflow .
   -The load cell is working in a contrary sense or it is not well connected.

$\boxed{Err3}$ Positive Overflow. (The load cell is supporting a superior weight than the nominal value.)
   -It is necessary to put a load cell that has a superior nominal value.

$\boxed{Err4}$ Polarity Error. (This error is detected when the unit adjusts the weight with the polarity of the load cell changed).
   -Revise the connection of the load cell.
   -Repeat the setting of the zero and the weight.

$\boxed{Err5}$ Short circuit in the output of the cabin display (MB-D).
   -Locate & eliminate the short circuit.
   -Turn off the unit (VK) and connect it again so that the display $\boxed{Err5}$ will disappear.

Note: When an error takes place all the alarms will be activated and the elevator is blocked.

5. Programming Structure of the Menu's

`1520`	*Presentation of the weight*
`CLAu`	*Keycode petition to modify parameters (Only appears if the key is different from zero)*
`AL C`	*Alarm of complete load*
`AL S`	*Alarm of overload*
`AL A`	Auxiliary *Alarm*
`CEro`	*Adjust of setting of the zero*
`PESO`	*Adjust with a well-known weight*
`CELL`	*Adjust of the cells with direct load value*
`CAdE`	*Chain compensation of the weight.*
`ConF`	*Configuration of the cabin display, & the condition of relay.*
`CLAu`	*Key of access for the programming process.*

Clave = 0

6. Calibration of the Unit.

This section is necessary so that the unit knows the relationship between the signal of the cell and the weight introduced in the cabin.

There are two ways to calibrate the unit:

I) Normal Calibration (*valid for all types of load cells*).

1) Setting of the Zero:

a)Situate in the option of menu `CEro`

b)Check that the cabin is empty and press the key ➡ The display menu `CEro` will become intermittent during 10 seconds.

c) Press again the key **MENU** while is in intermittent the operation will be confirmed starting with a count-down. And when it finished, the display will present the parameter `PESO`

Note: If you don't press the **MENU** before finishing the intermittence, the operation will not stored, and the display presents again the parameter `CEro`.

2) Adjust of the Weight: (It is important to do the **setting of the zero** before doing this operation)

a)Situate in the option of menu `PESO`

b)Introduce *inside the cabin a well-known* weight & press ➡

 Note: It is recommended at least as minimum *50%* of the complete load.

c)Put the value of the weight placed in the cabin using the keys ➡ ⬆

d)To save the value press the key **MENU** , **2 times** (The unit will start to *count -down*

and the value will be save).Then the display will present the next parameter `CELL`

 Note: If you haven't press the **MENU** for the 2nd time, the operation will not stored, and the display presents again the parameter `PESO`

II) Calibration of the cell for direct transmission (TCE model).

 * To fulfill this operation it is not necessary to introduce a *well-known weight* in the cabin.

1) Setting of the zero (same as the operation of the normal calibration).

2) Adjust of the weight:

a)Situate in the option of menu `CELL`

b)To enter and be able to asigned a value press ➡

c)Put the value of the load of the cell using this keys ➡ ⬆

 (*This data comes at the end of the cables, and it belongs to the calibration value of the manufacturer.*)

d)To save the value press the key **MENU** , **2 times**, and then the display will present the parameter `CAdE` .

Note: If you haven't press the **MENU** for the *2nd time*, the operation will not stored, and the display presents again the parameter `CELL` .

7. Alarms

The alarms are the load levels in which that change the state of the relay. To adjust them it is **not necessary any weight**, just program them on the keyboard.

`AL C` — Value of the load indicating that the elevators is complete. When the content of the elevator overcome this value, the state of the relay change to indicate the complete load, and the cabin display **MB-D** will light on up to the head of the dummy.

`AL S` — Value of the load indicating that the elevator is in overload.When the content of the elevator overcome this value, the state of the relay change to overload. And the cabin display **MB-D** will indicate that the elevator is in overload by activating the buzzer or by optical warning.

`AL A` — Value of the load starting from which changes the state of the relay to auxiliary. This relay doesn't have any specific function, it can be programmed with any load value that can be used to light a lamp, to activate a buzzer, to detect a minimum load, etc...

 Note: For the setting of the alarms, see section **Nº.4**(Modification of a parameter)