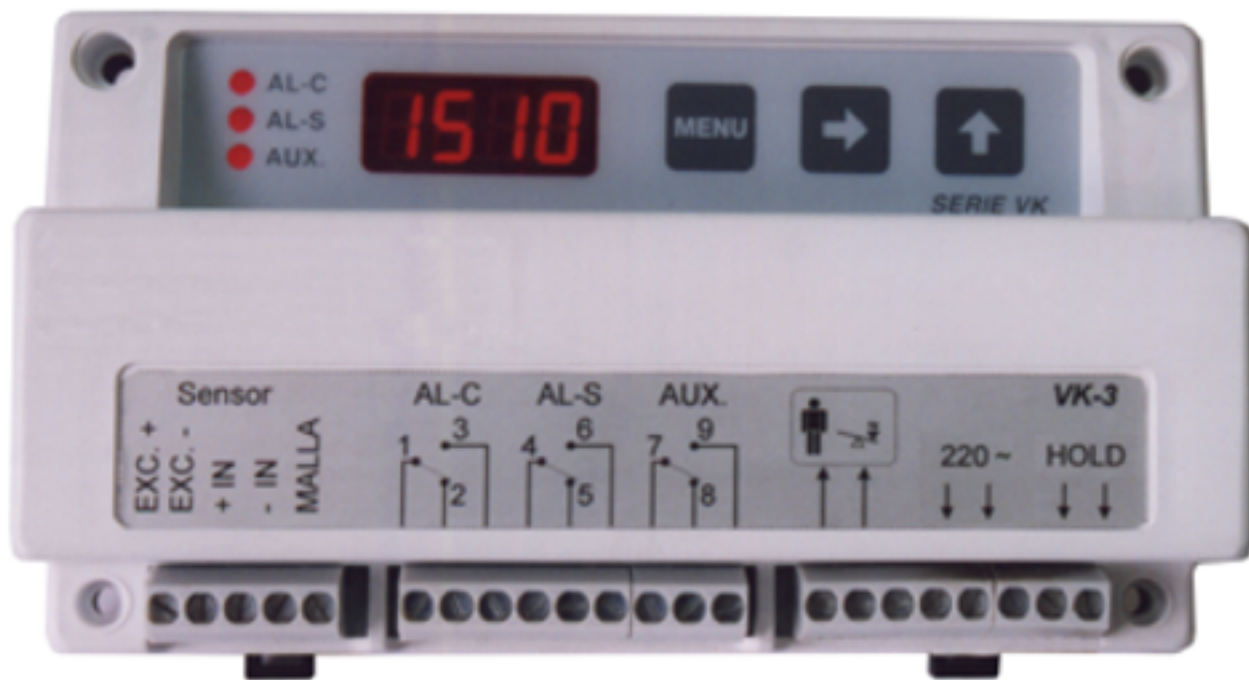
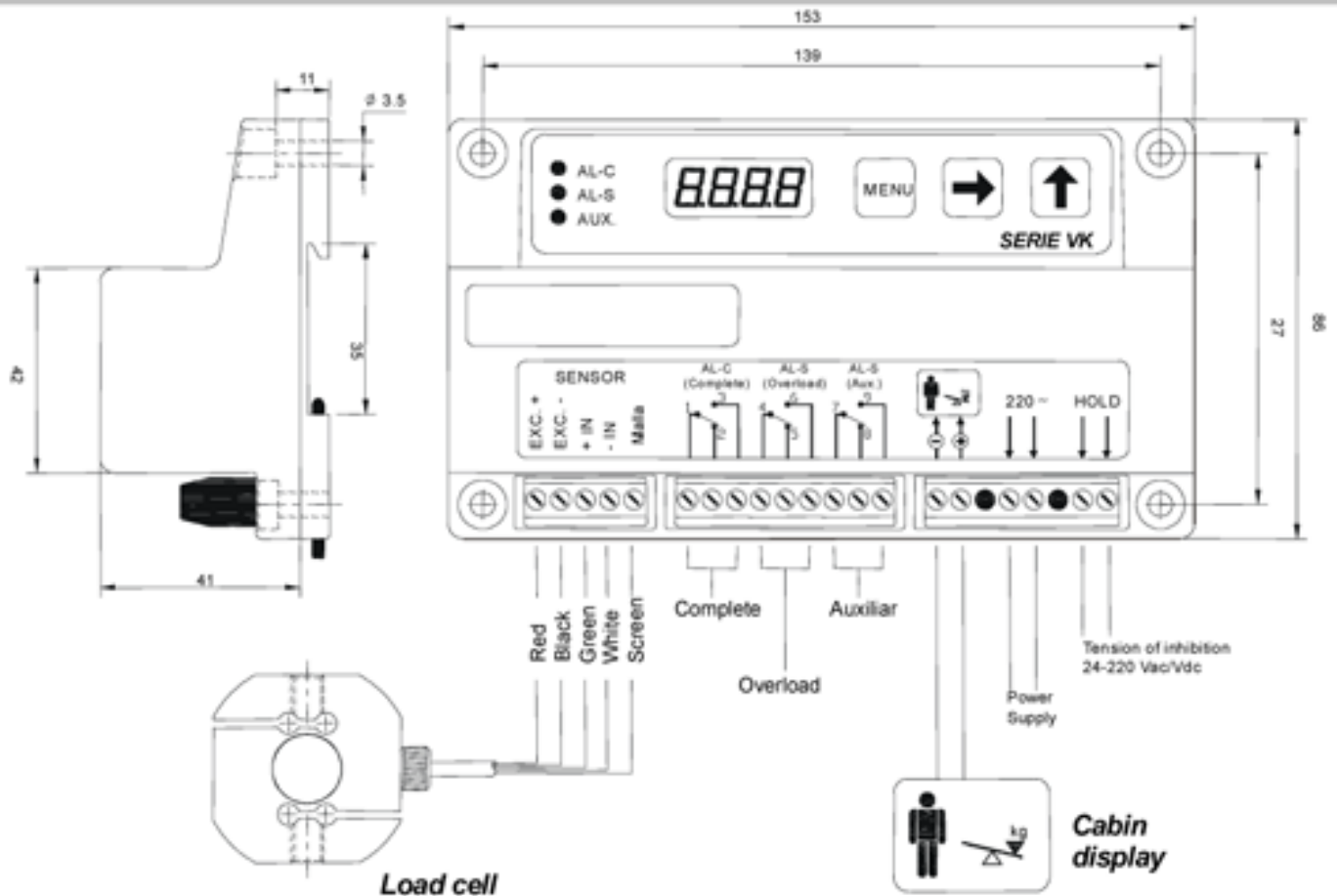


INSTRUCTION MANUAL OF LOAD WEIGHT CONTROL SYSTEM VK-3



1. Installation



2. Description of the connections

AL-C (Relay contact of the Complete load)

Change of the state if the load programmed in the parameter $\boxed{RL\ C}$ is overcome.

AL-S (Relay contact of the Overload)

Change of the state if the load programmed in the parameter $\boxed{RL\ S}$ is overcome.

AL-A (Relay of the Auxiliary)

Change of the state if the load programmed in the parameter $\boxed{RL\ A}$ is overcome.

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

HOLD (It activate 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 gets 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).

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

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

MENU 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 **CLRW** 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 N°.8 (Auxiliary functions **CLRW**)

↑ 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 **PES0**

4. Modification of the parameter

1)Go pressing the key **MENU** 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 **→** **↑**

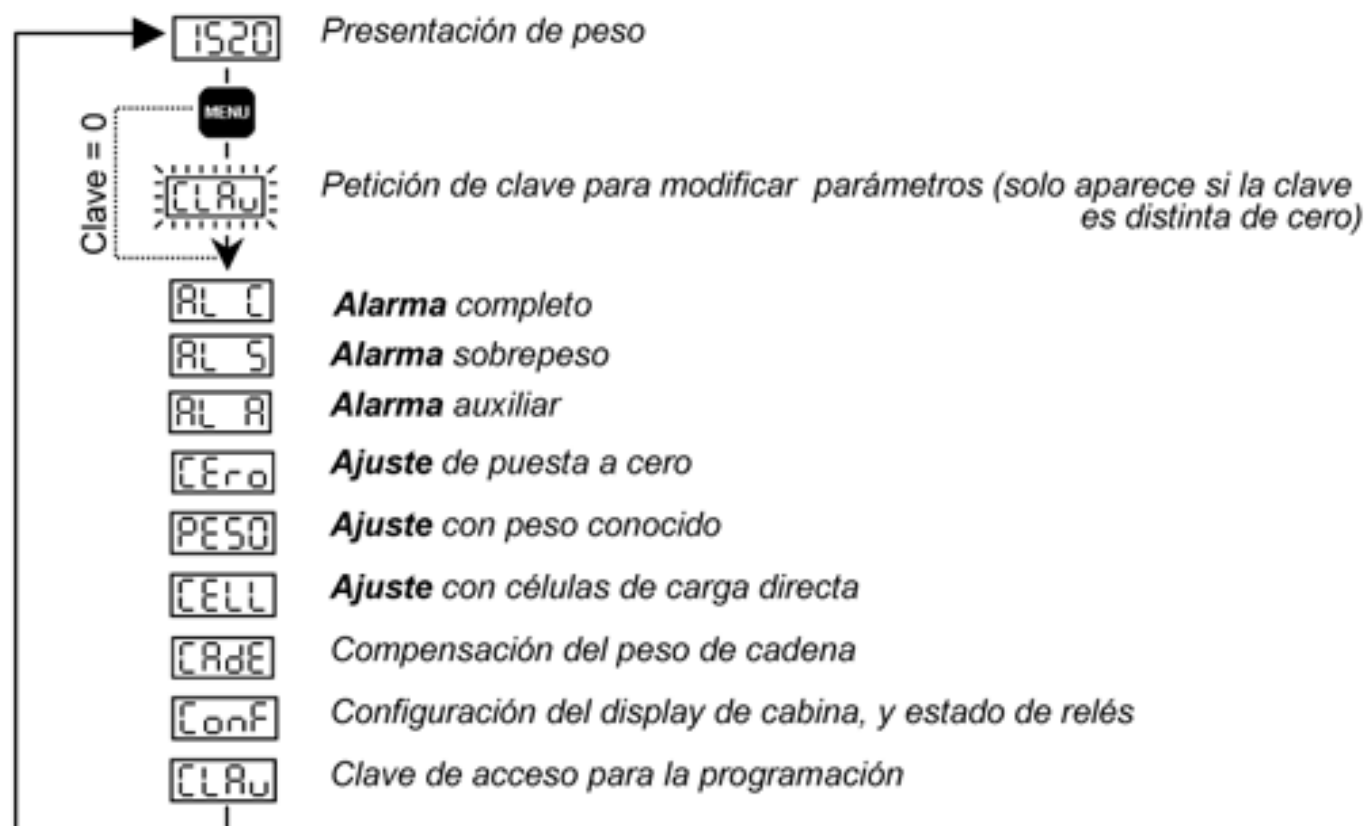
4) Press **MENU** 2 times to save the assigned value. Then the display will present the next parameter.

Notes:

a) If you haven't press the **MENU** 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 **PES0** & **CLRW** , please consult section N°.6
(Calibration of the unit)

5. Estructura de programación (Menu's)



6. Calibración del equipo



Este apartado es necesario para que el equipo sepa la relación entre la señal de la célula y el peso que se introduce en la cabina.


Hay dos formas de calibrar el equipo:

I) Calibración normal (valida para todo tipo de células).

1) Realización del cero:


a) Situarse en la opción de menú [Ero]

b) Comprobar que la cabina está vacía, pulsar la tecla , y después pulsar  mientras el display esté intermitente para confirmar la puesta a cero. La operación comienza con una cuenta atrás, y al finalizar el display presentará el parámetro PESO



Nota: Si no se pulsa  antes de terminar la intermitencia que dura 10 segundos, la operación no se almacena, y el display presenta de nuevo el parámetro [Ero]

2) Ajuste de peso:

a) Situarse en la opción de menú PESO

b) Introducir dentro de la cabina un peso conocido y pulsar 

Nota: Se recomienda como mínimo un 50% del completo.

c) Poner el valor del peso colocado en la cabina con las teclas  

d) Para grabar el valor pulsar la tecla  2 veces (El equipo empieza una

cuenta atras y el valor queda memorizado). Despues el display presentará el siguiente parámetro de ajuste. **CELL**

Nota: Si no se pulsa **MENU** la segunda vez antes de terminar la intermitencia, la operación no se almacena, y el display presenta de nuevo el parámetro **PESO**

II) Calibración para células de transmisión directa (modelo TCE).

* Para realizar esta operación no es necesario introducir un peso conocido en la cabina.

1) **Realización del cero** (igual que en la calibración normal).

2) **Ajuste de peso:**

a) Situarse en la opción de menú **CELL**

b) Para entrar y poder asignar el valor pulsar **→**

c) Poner el valor de carga de la célula con las teclas **→** **↑**

Este dato viene en el extremo del cable, y se corresponde con el valor de calibración de fábrica.

d) Para grabar el valor pulsar 2 veces la tecla **MENU**. (El valor queda memorizado). Despues el display presentará el siguiente parámetro de ajuste. **CRdE**

Nota: Si no se pulsa **MENU** la segunda vez antes de terminar la intermitencia, la operación no se almacena, y el display presenta de nuevo el parámetro **CELL**

7. Alarmas

Las alarmas son los niveles de carga en los que cambian de estado los relés. Para ajustarlos **no hace falta ningún peso**, solamente programarlos con el teclado.

AL C

Valor de la carga a partir del cual el ascensor está completo. Cuando el contenido del ascensor supera dicho valor, se cambia de estado el relé de completo y el display de cabina **MB-D** se encenderá hasta la cabeza.

AL S

Valor de la carga a partir del cual, el ascensor está en sobrecarga. Cuando el contenido del ascensor supera dicho valor el relé de sobrecarga cambia de estado, y el display de cabina **MB-D** indicará que el ascensor esta en sobrecarga óptica y sonoramente. En caso de conectar un led a la salida de display se encenderá intermitentemente.

AL A

Valor de la carga a partir del cual cambia de estado el relé auxiliar. Este relé no tiene ninguna función específica, puede ser programado con cualquier valor de carga y utilizarse para encender una lámpara, activar un zumbador, detectar una carga mínima etc...

Nota: Para el ajuste de las alarmas ir al **Nº.4**(Modificación de un parametro)

8. Auxiliary Functions

[ARdE] 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.


[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)

[CLRU] 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 **[CLRU]** 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 **[CLRU]** 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 touching 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

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.

- [Err1]** Load cell not well connected, damaged load cell or cut cable
- Revise the connection of the load cell.
- [Err2]** Negative Overflow .
-The load cell is working in a contrary sense or it is not well connected.
- [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.
- [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 adjust of weight.
- [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 **[Err5]** will disappear.






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

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 N°.1 (Installation)

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

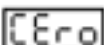


- a) To find the parameter that is wanted to change press successively  and to accede to the parameter press 
- b) Modify using this keys  
- c) To save the data press 2 times 

2) Before to start to calibrate the unit control, please be advise to do the following:





- a). Down the cabin to the lower plant of the building. (or in the half of the itinerary)
- b). Bounce inside the cabin to avoid possible hooks on the guide rail.

3) Most important parameters to calibrate step by step:

1°. Set the Zero of the unit with the empty elevators:

- Situate in the parameter 
- Press   and will start to count-down.

2°. Adjust of the Weight (Peso):

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

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

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

5°. Put in 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**.