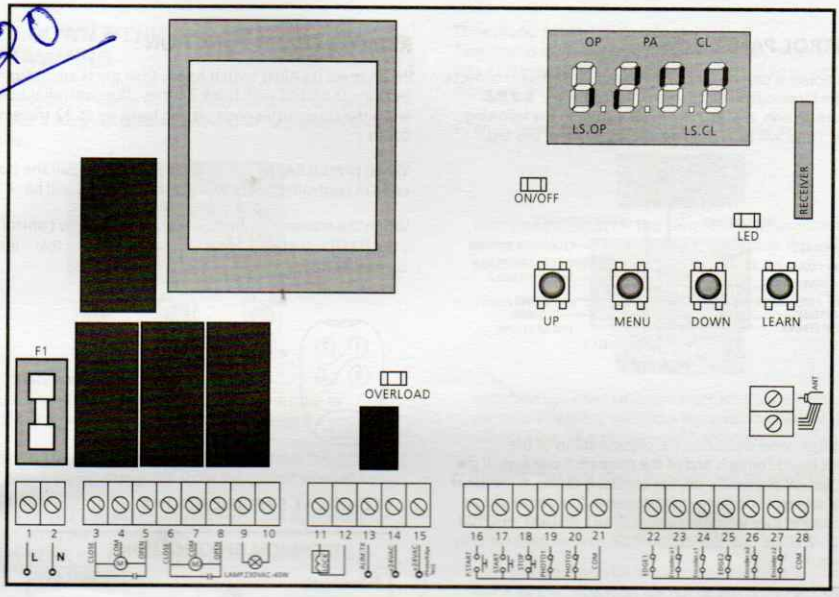
Italian controller 220V

Preliminary Installation and Operating Instruction

S020



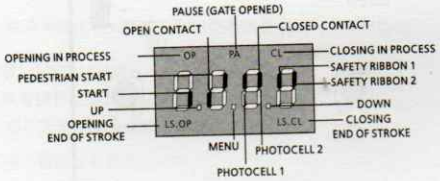
1	Power phase 230 VAC/110VAC
2	Neutral 230 VAC/110VAC
3	Motor 1 closing
4	Motor 1 common
5	Motor 1 opening
6	Motor 2 closing
7	Motor 2 common
8	Motor 2 opening
9-10	Flashing light 230VAC 40W
11-12	Electric lock 12VAC
13-14	Photocell TX power supply for functional test
14-15	Power output 24 VAC for photocells and other accessories
16	Opening controls for pedestrian access for the connection of control devices with N.O. contact
17	Opening control for the connection of control devices with N.O. contact
18	Stop command. N.C. contact
19	Photocells type 1. N.C. contact
20	Photocells type 2. N.C. contact
21	Common (-)

22	Safety ribbons type 1 (fixed). N.C. contact	
23	End of stroke in door 1 opening phase. N.C. contact	Encoder motor 1
24	End of stroke in door 1 closing phase. N.C. contact	
25	Safety ribbons type 2 (mobile). N.C. contact	
26	End of stroke in door 2 opening phase. N.C. contact	Encoder motor 2
27	End of stroke in door 2 closing phase. N.C. contact	
28	Common (-)	
F1	5A 230VAC/110VAC FUSE	
ON/OFF	It shows that the control unit is power supplied	
OVERLOAD	It shows that there is an overload on accessories power supply	
LED	It shows that the control unit learn function	
LS.OP	It shows the opening end of stroke activation	
LS.CL	It shows the closing end of stroke activation	
OP	Opening in process	
PA	Pause (gate opened)	
CL	Closing in process	

Preliminary Installation and Operating Instruction

CONTROL PANEL

When power is on, the control unit checks that display correctly operates by switching on all segments for 1.5 sec. ***8.8.8.8.*** Firmware version, e.g. ***Pr 2.4***, will be viewed in the following 1.5 sec. Panel will be viewed upon completion of this test.



The control panel represents the physical status of the terminal board contacts and of the program mode keys: if the upper vertical segment is on, the contact is closed; if the lower vertical segment is on, the contact is open (the above picture shows an instance where the inputs START, P.START ,PHOTO1, PHOTO 2,EDGE 1,EDGE 2 and STOP have all been correctly connected).

Points being among display digits show the status of programming push-buttons: as soon as a push-button is pressed, its relevant point turns on.

The lowest side on the display show the status of the ends of stroke. As for a one door-gate, **LS.OP/LS.CL** turn on when its end of stroke shows that the gate is completely closed or completely open.

As for a two-door gate, the words turn on when both the ends of stroke show that both the doors are completely closed or completely open; the arrow will blink in case only one door reaches its end of stroke.

WARNING : these functions have not been activated in case of ends of stroke being connected in series to the motor.

The words on the display right side show the gate status:

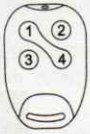
- The highest **OP** turns on when the gate is into its opening phase. If it blinks, it means that the opening has been caused by a safety device (border or obstacle detector).
- The central **PA** shows that the gate is on pause. If it blinks, it means that the time countdown for the automatic closing has been activated.
- The highest **CL** blinks when the gate is into its closing phase. If it blinks, it means that the closing has been caused by a safety device (border or obstacle detector).

REMOTE LEARN FUNCTION :

When press [LEARN] switch brief , then press any transmitter button , the [LED] with blink 2 times , the controller board now learn the transmitter code , it can learn up to 32 transmitter codes .

When press [LEARN] switch over 10 seconds , all the transmitter code in controller board will erase , the [LED] will blink 10 times .

When the transmitter button already learn into controller board , the [LED] will blink 5 times , the code will not learn into controller board .



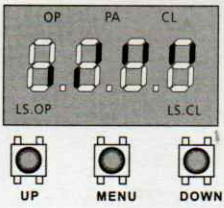
- CHANNEL 1 START
- CHANNEL 2 STOP
- CHANNEL 3 PEDESTRIAN START

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS	
Power supply	230V / 50Hz
Max motors load	2 x 700W
Max accessories load 24V	10W
Working temperature	-20 ÷ +60 °C
Protection fuse	F1 = 5A delayed

USE OF DOWN MENU AND UP KEYS FOR PROGRAMMING

Control unit time and function programming is made within a special configuration menu, to which you can access and where you can shift through **DOWN, MENU** and **UP** keys placed under the display.



Hold down the MENU key until **dEF** appears on display, to activate the programming mode while display views the panel.

Configuration menu consists of a list of configurable items; the wording appearing on display will show the current selected item.

By pressing DOWN, you will pass to the next item; by pressing UP, you will return to the previous item.
By pressing MENU, you can view the current value of selected item and possibly change it.

The last menu item (**FinE**) allows storing the carried out changes and going back to the control unit normal operation. You must exit from programming mode through this menu item if you do not want to lose your configuration.

WARNING : in case no operation is carried out for more than one minute, the control unit exits from the programming mode without saving any of your setups and changes, which will get lost.

holding down the DOWN key, configuration menu items will roll fast, until item **FinE** is viewed. Viceversa, by holding down the UP key, items will scroll fast backwards until item **dEF** is viewed. In this way, you can quickly reach either the top or bottom of the list.

There are the following three kinds of menu items:
- Function menu
- Time menu
- Value menu

Function menu setup
Function menus allow selecting a function from among a group of available options. When you enter into a function menu, the current active option will be viewed; you can scroll all available options through DOWN and UP keys. By pressing the MENU key, you will activate the option viewed and you will return to the configuration menu.

Time menu setup
Time menus allow setting a function duration. When you enter into a time menu, the current setup value will be viewed; the display mode depends on the current value:

- times being lower than one minute will be viewed as follows:

each time you press UP key, current time value increases of half a second; vice versa, each time you press the DOWN key, current time value decreases of half a second.

- Times between 1 and 10 minutes will be viewed as follows:

each time you press UP key, current time value increases of 5 seconds; vice versa, each time you press the DOWN key, current time value decreases of 5 seconds.

- Times being more than 10 minutes will be viewed as follows:

each time you press UP key, current time value increases of half a minute; vice versa, each time you press the DOWN key, current time value decreases of half a minute.

By holding down the UP key, you can quickly increase the time value, up to reach the max. value allowed for this item. Vice versa, by holding down the DOWN key, you can quickly decrease the time value down to reach **0.0"**.

In some circumstances, setting the value to 0 means that the relevant function is disabled, in this case, '**no**' will appear instead of **0.0"**.

By pressing on MENU you will confirm the displayed value and you will return to the configuration menu.

Value menu setup
Value menus are similar to time menus; however, the setup value can be any number.
By holding down UP or DOWN keys, the value will increase or decrease slowly.

QUICK CONFIGURATION

This paragraph concerns a quick procedure to set the control unit and set it at work immediately.
We recommend following these instructions, in order to check quickly the correct operation of control unit, motor and accessories, and then changing the configuration in case of any non-satisfactory parameter.

WARNING: The self-learning procedure must be performed when the encoder is to be used.

Please refer to the paragraph "Control unit configuration" for the item position inside the menu, as well as for the available options for each item.

1. Call up a default configuration (item **dEF.**). Select **AntE** for a door-gate, select **Scor** for other configurations (sliding, rolling, sectional, etc.).
2. If you have a door gate with only one motor, set **t.AP2** opening time to zero.
3. In case there is no electric lock on the gate, set **t.SEr**, **t.ASE** and **t.CvE** values to zero.
4. Set items **StoP**, **PHOTO1**,**PHOTO2**,**EDGE1**, **EDGE2** and **FC.En** according to the safety devices installed on the gate.
5. Start the self-learning cycle (item **APPr**).

This last operation will close the configuration menu and store set up parameters.

Self-learning procedure if there are two motors:

- In case the ends of stroke, the encoder or the obstacle sensor have been enabled, the doors will be activated in closing direction until the stop end or the closing end of stroke is reached. Be sure that the leaves do not overlap.
- In case NEITHER the ends of stroke NOR the obstacle sensor have been enabled, be sure that the doors are completely closed when the procedure starts.
- The doors will be activated in opening direction until the stop end or the opening end of stroke is reached.
- In case the sensors have not been enabled, or if you realize that they do not signal the position to the control unit, you must send a first START command when leaf 1 reaches its max. opening position and then a second START command when leaf 2 completes its opening phase.
- The doors will be activated in closing direction until the stop end or the closing end of stroke is reached
- In case the sensors have not been enabled, or if you realize that they do not signal the position to the control unit, you must send a first START command when leaf 1 reaches its fully closed position and then a second START command when leaf 2 completes its closing phase.

Self-learning procedure if there is one motor:

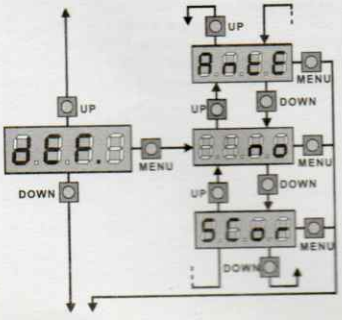
- In case the end of stroke, the encoder or the obstacle sensor has been enabled, the door will be activated in closing direction until the stop end or the closing end of stroke is reached.
- In case NEITHER the ends of stroke OR the obstacle sensor have been enabled, be sure that the door is completely closed when the procedure is started up.
- The door will be activated in opening direction until the stop end or the opening end of stroke is reached.
- In case the sensors have not been enabled, or if you realize that they do not signal the position to the control unit, you must send a START command when the door reaches its max. opening position.
- The door will be activated in closing direction until the stop end or the closing end of stroke is reached.
- In case the sensors have not been enabled, or if you realize that they do not signal the position to the control unit, you must send a START command must be sent when the door reaches its fully closed position.

CONTROL UNIT CONFIGURATION

This paragraph concerns the step-by-step procedure to set all operation parameters of VG-DRC-6 control unit. You can either follow all procedure steps and perform a complete control unit configuration or select and adjust interesting items only.

As for both cases, you will have to perform the right exit procedure through item **FinE** , in order to activate your new configuration.

VG-DRC-6 provides for a self-learning procedure of working times; therefore, we recommend that you set up a standard configuration first (see previous paragraph), then you carry out the self-learning and finally you change any unsatisfactory items.

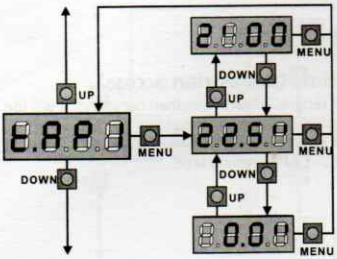


Default value loading

The value of all menu items can be brought to a standard value (see final recap table) by means of only one command. There are two sets of values available:

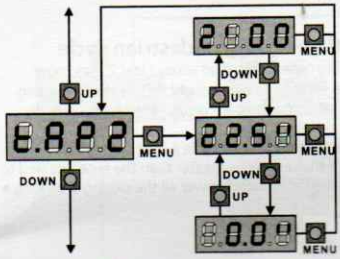
AntE Values for a two-leaf gate equipped with a lock.
SCor Values for a one-leaf sliding gate without lock.

After loading default values, the other menu items can be scrolled and each parameter can be changed; exit from default menu will cause the automatic selection of the next item.



Leaf 1 opening time

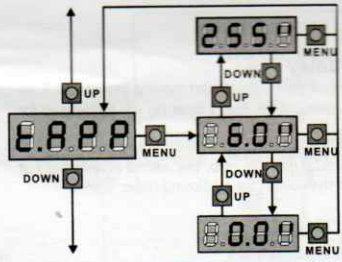
Motor 1 will be operated for the setup time in the opening phase; in case there is an obstacle or the end of stroke operates, the control unit can stop the opening phase before the relevant time expires.



Leaf 2 opening time

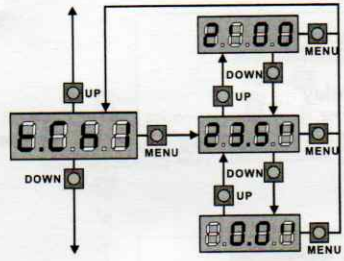
Motor 2 will be operated for the setup time in the opening phase; In case there is an obstacle or the end of stroke operates, the control unit can stop the opening phase before the relevant time expires.

WARNING: if motor 2 is not connected, this time must be set to zero; in this circumstance, the control unit will not consider all configurations of motor 2 and door phase difference times as well.



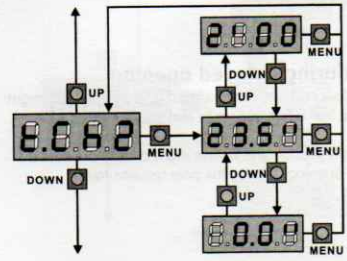
Partial opening time (pedestrian access)

When the control unit receives a Start Pedestrian command, it will open leaf 1 only, for a shorter time. Max allowed time to be setup is **t.AP1**.



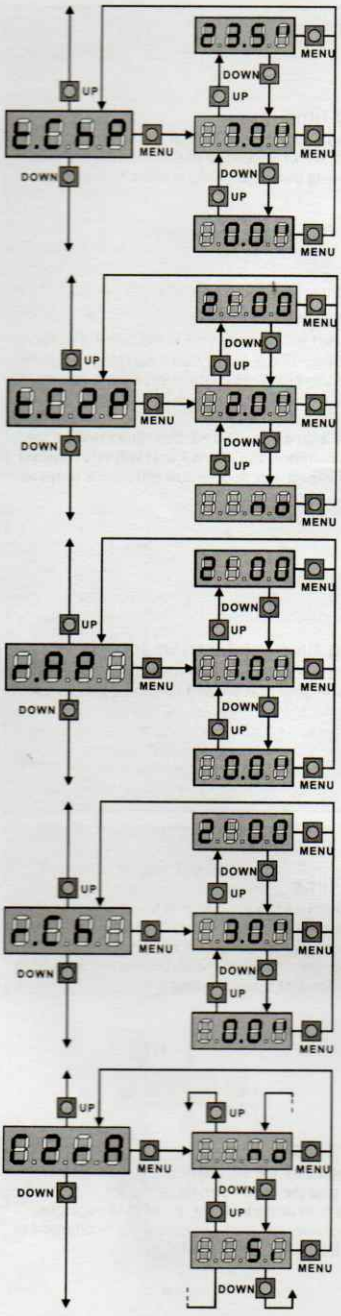
Leaf 1 closing time

Motor 1 will be operated for the setup time in the closing phase; In case there is an obstacle or the end of stroke operates, the control unit can stop the opening phase before the relevant time expires. To avoid that the door does not close completely, we recommend to setup a longer time than **t.AP1** opening time.



Leaf 2 closing time

Motor 2 will be operated for the setup time in the closing phase; the control unit can stop the opening phase before the relevant time expires, in case there is an obstacle or the end of stroke operates. To avoid that the door does not close completely, we recommend to setup a longer time than **t.AP2** opening time.



Partial closing time (pedestrian access)

When the control unit receives a Start Pedestrian command, it will use this time to close the gate. Max allowed time to be setup is **t.CH1**.
To avoid that the door does not close completely, we recommend to setup a longer time than **t.APP** opening time.

Leaf 2 closing time during pedestrian cycle

During a partial opening cycle (pedestrian access) leaf 2 may move slightly because of the wind or its own weight; in this case at closing time leaf 1 could hit leaf 2 and the gate would remain not perfectly closed.
To avoid this, in the last seconds of the cycle a light closing force is applied to leaf 2 too. If the set time is greater than the time required to close leaf 1, leaf2 is driven at reduced power all the closing time long.

Opening door delay

During the opening phase, leaf 1 must start moving before leaf 2, to avoid that both doors may collide. Leaf 2 opening will be delayed for the setup time.

If you set the opening door delay to zero, the control board does not execute the control of the correct leaves closing order.

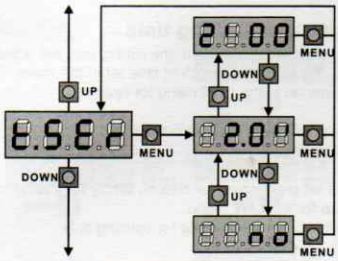
Closing door delay

During the closing phase, leaf 1 must start moving after leaf 2, to avoid that both doors may collide. Door 1 closing will be delayed for the setup time.

Closing leaf 2 during delayed opening

With some gates, the second leaf is held closed by a pole, which might become blocked if the leaf is left free while leaf 1 only is opened.

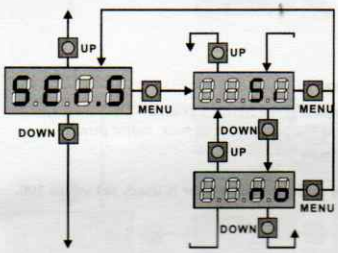
This parameter makes it possible to exercise slight closing pressure on leaf 2 during delayed opening, so that the pole remains free.



Lock time

Before the opening phase begins, the control unit will energize the electric lock in order to release it and enable the gate motion.
t.SEr time will fix the energizing time.

WARNING: in case the gate has no electric lock, set the value 0 ('no' will appear on display).

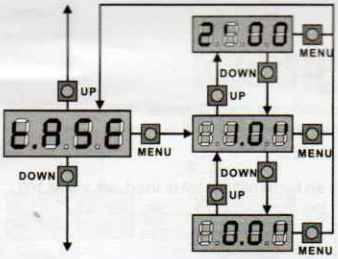


Silent Locking Mode

This menu allows you to select the silent operation mode for the electric lock.

Si Silent Mode (140 Hz)
no Standard Mode (50 Hz)

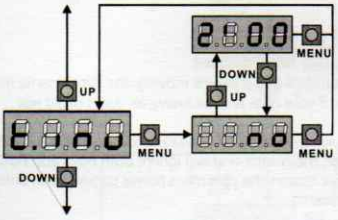
CAUTION : In silent mode, the voltage supplied to the lock has a higher frequency in order to make the locking less noisy. In some cases, there may be problems when unlocking. If problems should occur, select the Standard mode.



Lock advance time

While the electric lock is energized, the gate will stay standstill for t.ASE time, to make its release easier.
In case **t.ASE** is lower than **t.SEr**, the lock energizing will go on while the doors will start moving.

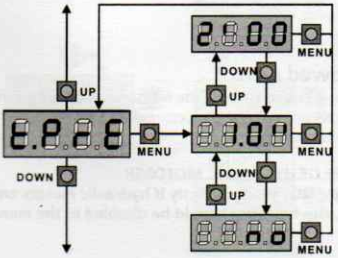
WARNING: in case the gate has no electric lock, set the value 0



Backlash time

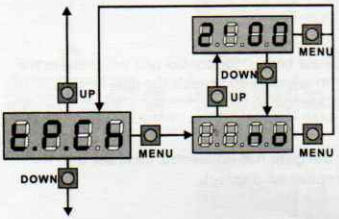
It could be useful to give a closing command to motors, to help the electric lock release.
The control unit controls the motors in reduced power in closing direction for the setup time.
The backlash precedes the electric lock release. It is possible to reverse the order by setting a lock advance time higher then the backlash one.

WARNING: in case the gate has no electric lock, set the value 0



Pre-blinking time

Before any gate movement, blinker will be activated for **t.PrE** time, to warn about the incoming motion.

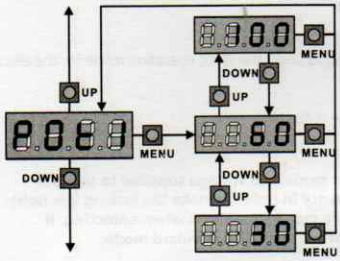


Different closing pre-flashing time

If this parameter has a value assigned to it, the control unit will activate pre-flashing prior to closure for the length of time set in this menu (while keeping the time set in the ***t.PrE*** menu for opening).

If ***no*** is selected, the pre-flashing time set in the ***t.PrE*** menu is used during opening and closing.

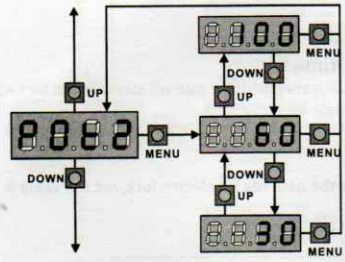
If it is only desired to set pre-flashing for closure, simply set a value for ***t.P.C.h.*** and select ***no*** for the ***t.PrE*** menu
NOTE: it is not possible to set pre-flashing for opening only.



Motor 1 power

This menu allows adjusting the motor 1 power.
The displayed value is the percentage of max. motor power.

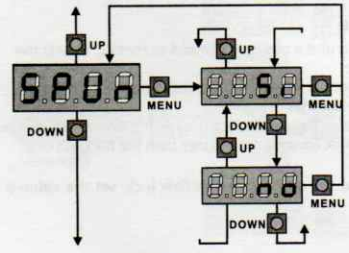
WARNING: In case an hydraulic motor is used, set value 100.



Motor 2 power

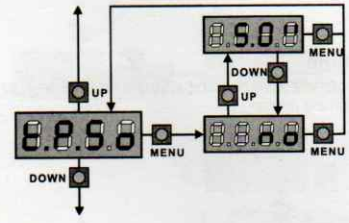
This menu allows adjusting the motor 2 power.
The displayed value is the percentage of max. motor power.

WARNING: In case an hydraulic motor is used, set value 100.



Start off

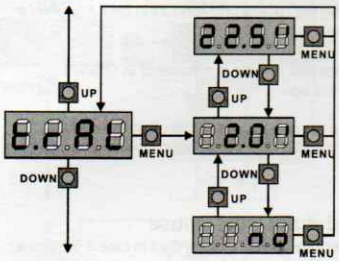
When the gate is standstill and it begins moving, the initial inertia must be faced, therefore, if your gate is quite heavy, its doors could not move.
In case the **SPUn** (pickup) function is activated, for the first 2 seconds of motion of each door, the control unit will ignore both **Pot1** and **Pot2** values and it will give motors the maximum power command in order to overcome the gate inertia.



Soft start (slowed down)

In case this function is enabled, during the first seconds of motion of each door, the control unit will give motors a reduced power command, for a softer start.

PLEASE NOTE (USE OF HYDRAULIC MOTORS):
This function might NOT work correctly if hydraulic motors are used. In this case, the functions should be disabled in the menu.



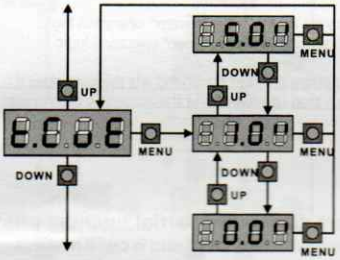
Slowing down time

In case this function is enabled, during the last seconds of motion of each door, the control unit will give motors a reduced power command, to avoid a strong impact with the stop end. **t.AP1** is the max. allowed time.

WARNING:

- In case the self-learning function of working times is NOT used, we recommend disabling the slowing down function in order to measure both opening and closing times, and to enable it again once the setup has been carried out. The control unit will automatically consider the working time delay caused by the slowing down.
- If partial opening time **t.APP** is shorter than **t.AP1** , there will be no slowing down during the pedestrian cycle opening.

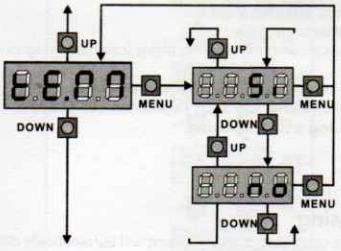
PLEASE NOTE (USE OF HYDRAULIC MOTORS):
This function might NOT work correctly if hydraulic motors are used. In this case, the functions should be disabled in the menu.



Fast closing time after slowing down

If a slowing time other than 0 is set up, it could be likely that the gate speed is not enough for the lock to fasten during the closing phase. In case this function is enabled, once the slowing down phase is finished, the control unit will give a normal speed command (that is to say, with no slowing down) for the set up time, and then it will open the gate for a second fraction, to avoid leaving the motor under stress.

PLEASE NOTE: Set to 0 if the gate is not fitted with electro-locks or if slowing is disabled.



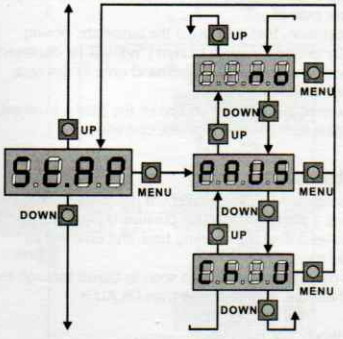
Enabling the motor test

When the motors are not connected directly to the main terminal board, but controlled by relay or remote switches, the control devices are not sufficiently charged and the motor function test might fail.

This menu allows motor control device verification to be enabled or disabled prior to each cycle.

Si test enabled
no test disabled

PLEASE NOTE: This test is important for safe use of the gate. We recommends disabling the test ONLY when the control unit is not connected directly to the motors.

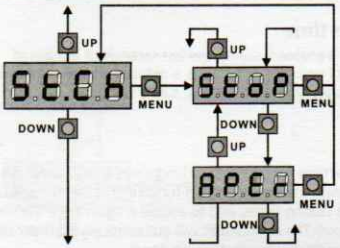


Start command during the opening phase

This menu allows fixing the control unit conduct in case it receives a Start command during the opening phase.

PAUS The gate stops and goes to pause.
ChiU The gate immediately starts closing.
no The gate go on with the opening phase (command is ignored).

Select option **PAUS**, to set up the "step-by-step" operation logic.
Select option '**no**', to set up the 'always open' operation logic.

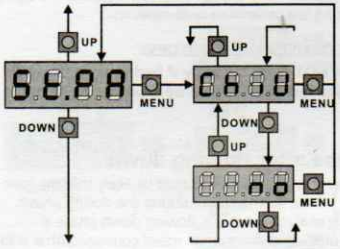


Start command during the closing phase

This menu allows fixing the control unit conduct in case it receives a Start command during the closing phase.

StoP The gate stops and its cycle is considered as finished.
APEr The gate opens again.

Select option **StoP**, to set up the "step-by-step" operation logic.
Select option **APEr**, to set up the 'always open' operation logic.



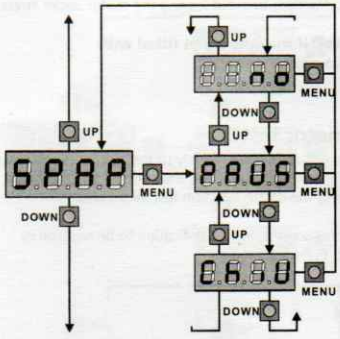
Start command during the pause

This menu allows fixing the control unit conduct in case it receives a Start command when the gate is open during its pause phase.

ChiU the gate starts closing.
no command is ignored.

Select option **ChiU**, to set up the "step-by-step" operation logic.
Select option '**no**', to set up the 'always open' operation logic.

Apart from selected option, the start command lets the gate close if it has been stopped by a stop command or if the automatic closing was not enabled.

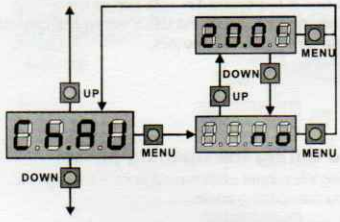


Pedestrian Start during the partial opening phase

This menu allows fixing the control unit conduct in case it receives a Pedestrian Start command during the partial opening phase.

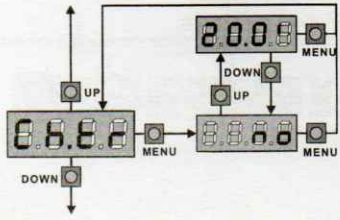
PAUS The gate stops and goes to pause.
ChiU the gate immediately starts closing.
no the gate goes on with the opening phase (command is ignored).

WARNING : a Start command in any phase of partial opening will cause the total opening; the Start Pedestrian command is always ignored during a total opening.



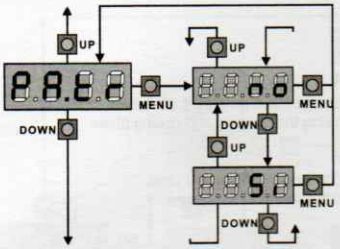
Automatic closing

During the automatic operation, the control unit will automatically close the gate when a set-up time expires.
The Start command, if enabled by **St.PA** menu, allows closing the gate before the set up time expires.
In semi-automatic operation, that is to say, if the automatic closing function is disabled by setting the value to zero (**'no'** will be displayed), the gate can be closed through the start command only: in this case, **St.PA** menu setup will be ignored.
If the control unit receives a Stop command when the gate is in pause, it will automatically pass to the semi-automatic operation.



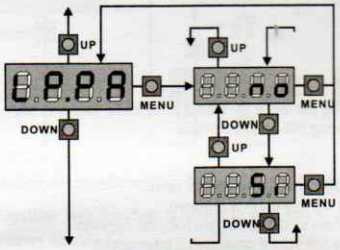
Closing after transit

During the automatic operation, the pause count down starts from the set up value each time a photocell operates during the pause.
If the photocell operates during the opening time, this time will be immediately stored as pause time.
This function allows having a fast closing as soon as transit through the gate is completed, therefore, a time shorter than **Ch.AU** is generally used.
Ch.AU will be used when **'no'** is set up.
As for semi-automatic operation, this function is not active.



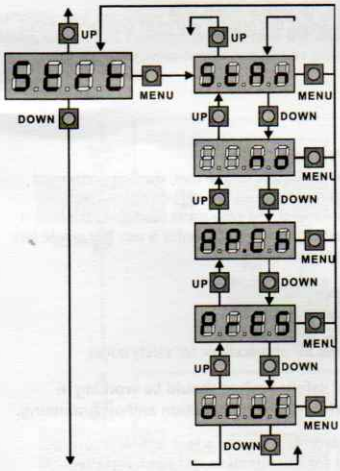
Pause after transit

In order to let the gate open for the shortest possible time, it is possible to stop the gate once the passage before the photocells is detected. If the automatic working is enabled, the time of the pause is **Ch.tr**.
If the photocells are **type 1** and **type 2**, the gate enters the phase of pause only after the detections before both the photocells.



Blinker during pause time

Blinker usually operates during the gate motion only; however, if this function is enabled, blinker will be on during the pause time too.



Start input function

This menu allows selecting input operation modes :

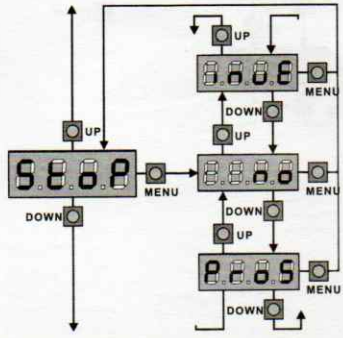
StAn Start and Pedestrian Start input standard operation, according to menu setups.

no Start inputs from terminal board are disabled. Radio inputs operate in **StAn** mode.

AP.CH Start impulse always controls the opening phase, Pedestrian Start always controls the closing phase.

PrES Manned operation; the gate will open as long as the Start input stays closed and it will close as long as Pedestrian Start stays closed.

oroL Timer-operation; the gate stays open while the Start input or Pedestrian Start input is closed; as soon as the contact opens, the pause count down will start.



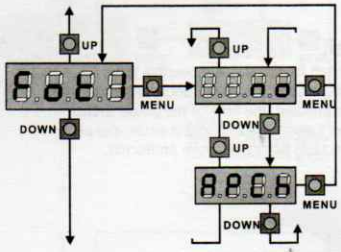
Stop Input

This menu permits to select the functions associated to the command of STOP.

no The input STOP is not available.
ProS The input STOP stops the gate: pressing the command START the gate continues the motion.
invE The command STOP stops the gate: at the next START the gate starts moving in the opposite direction.

The setting of parameter STOP determines also in which direction the gate will move at the next START, if it has stopped because of an intervention of the safety edges or the obstacle sensor. If you set no, the START command restarts the motion in the same direction.

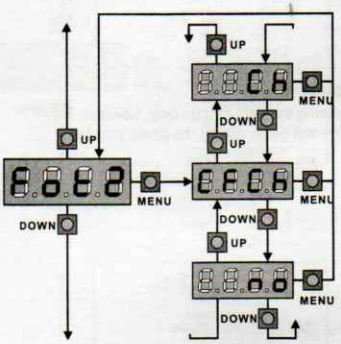
NOTE: during the pause, the STOP command will stop the pause time count, the next START command will always close the gate.



Photocell 1 input

This menu allows enabling the input for type 1 photocells, that is to say, photocells active both during the opening and closing phase.

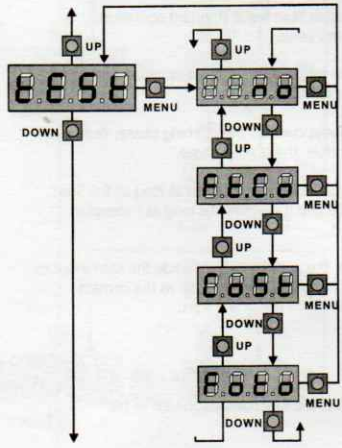
no Input disabled (ignored by the control unit).
No jumper with the common is required.
AP.CH Input enabled.



Photocell 2 input

This menu allows enabling the input for type 2 photocells, that is to say, photocells non active during the opening phase.

no Input disabled (ignored by the control unit).
No jumper with the common is required.
CF.CH Input enabled even at standstill gate too: the opening movement does not start if photocell is interrupted.
CH Input enabled for the closing phase only.
Warning: if you select this option, you must disable photocell test.



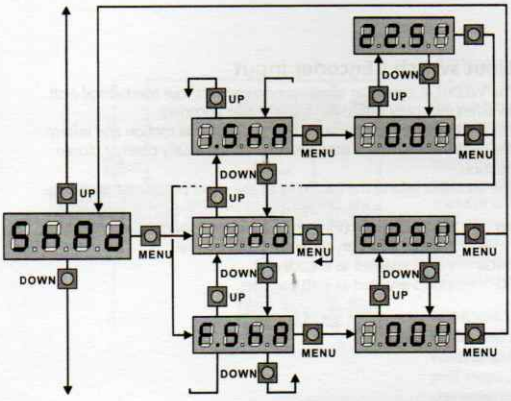
Test of safety devices

In order to achieve a safer operation for the user, the unit performs a safety devices operational test, before a normal working cycle.
If no operational faults are found, the gate starts moving. Otherwise, it will stand still and the flashing light will stay onfor 5 sec. The whole test cycle lasts less than one second.

no function not active
Foto test enabled only for photocells
CoSt test enabled only for safety edges
Ft.Co test enabled either for photocells or for safety edges

WARNING : The Test of safety devices should be working in order to grant more safety during installation and programming.

WARNING : it is possible to test safety edges only if a control unit specially provided for this function has been installed.



Photocell 2 Shadow Zone

In some installations it may occur that the gate door passes before the photocells, so breaking their beam. In this case, the gate cannot complete its closing cycle. Through this function, photocells can be temporarily disabled, so allowing the door passage. Only those photocells which are connected to the Photocell type 2 input can be disabled, this function being therefore activated in the closing phase only.
The door travel, during which photocells are not active, is measured in seconds from the beginning of the door 1 closing and starting from the max. opening position.

Please comply with the following procedure to setup the shadow zone limits:

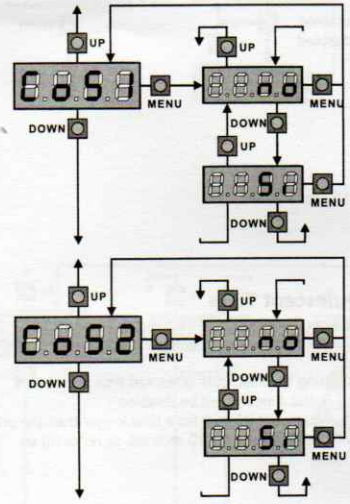
- Completely open the gate with the disabled function, then activate its closing and see after how many seconds the photocell operates.
- Set up a slightly lower time into i.ShA menu and a slightly higher time into F.ShA menu.

- During the time between i.ShA and F.ShA, photocells(FOTO2) will not be active during the closing phase.

WARNING: This function is active in case the ends of stroke have been fitted and enabled and if the START IN OPENING has been disabled.

WARNING: any improper use of this function may jeopardize the gate safe use. We recommends what follows:

- **Make use of this function only in case the door passage before the photocells is actually unavoidable.**
- **Set up the shadow zone limits as tight as possible, complying with the necessary margins to compensate any possible door speed difference.**



Safety ribbon 1 input

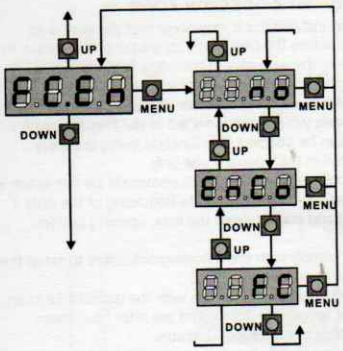
This menu allows enabling the input for type 1 safety ribbon, that is to say, fixed ribbons :

no	Input disabled (ignored by the control unit). No jumper with the common is required.
Si	Input enabled.

Safety ribbon 2 input

This menu allows enabling the input for type 2 safety ribbon, that is to say mobile ribbons :

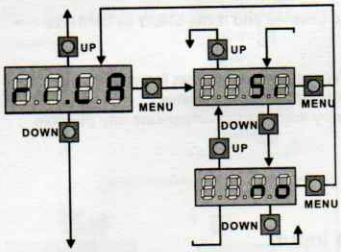
no	Input disabled (ignored by the control unit). No jumper with the common is required.
Si	Input enabled.



Limit switch / Encoder input

The VG-DRC-6 controller allows you to connect four mechanical limit switches (normally closed contacts) or two encoders.
The limit switches are activated by the gate panel motion and inform the controller that each gate has reached the totally open or closed position.
The encoders inform the controller of the exact position of each gate.

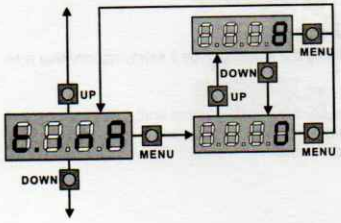
no	Inputs disabled (the controller ignores them). It is not necessary to jumper with neutral.
EnCo	Inputs enabled as encoders
FC	Inputs enabled as limit switches.



Motor Release on Mechanical Stop

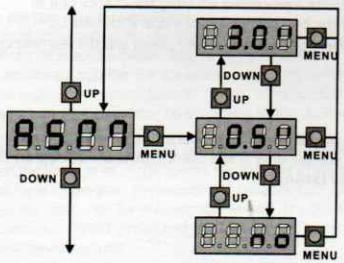
When the gate halts against the mechanical stop, the motor is controlled for a fraction of a second in the opposite direction, decreasing the motor gear tension.

Si	Function enabled
no	Function disabled



Max. Gate Quiescent Time

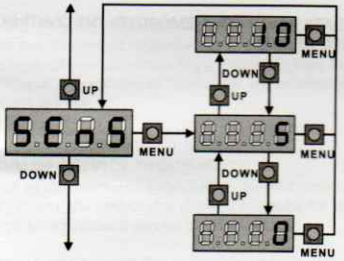
Some types of actuators (hydraulic actuators, mainly) tend to be loosened after some hours of quiescent time, jeopardizing the gate mechanical closing.
Such menu allows setting the max. gate quiescent time from 1 to 8 hours. By setting on 0, this function will be disabled.
In case the gate stays quiescent (closed) for a time longer than the set time, VG-DRC-6 will close the gate for 10 seconds, so restoring an effective closing.



Anti-skid

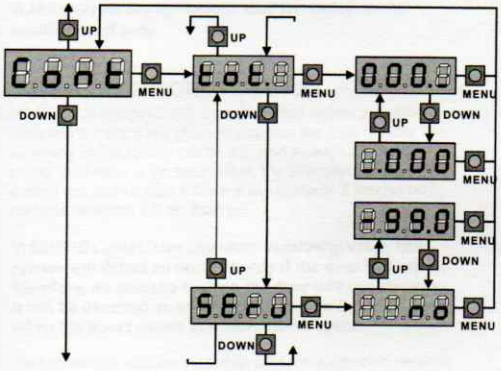
When an opening or closing operation is interrupted by a command or for the intervention of the photocell, the set-up time for the opposite movement would be excessive, so the control unit operates the motors only for the time necessary to recover the actually covered journey. This could be not sufficient, particularly in the case of very heavy gates, as because of the inertia at the inversion moment the gate runs an extra space in the previous direction that the control unit is not able to take into account.
If after an inversion the gate does not return exactly to the starting position, it is possible to set an anti-skid time that is added to the time calculated by the control unit in order to recover the inertia.

WARNING: If function ASM is disabled, the gate goes backward until it comes to the end stops. In this phase the control unit does not activate the slow down function before the end stops are reached and any obstacle that comes across after the inversion is considered as an end of stroke.



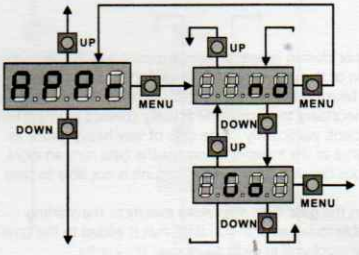
Obstacle Sensor Enabling

This menu allows the sensitivity adjustment of the obstacle sensor over 10 levels, from 1 to 10. By setting up "0", sensors will be disabled, increasing the value the sensivity increase.
The control unit automatically adjusts the sensor on the most suitable level, according to each motor set up power.
In case the safety operation is deemed not to be fast enough, the sensitivity level can be slightly increased.
If the gate stops where no obstacles are present, you should reduce the sensitivity level.



Counter viewing

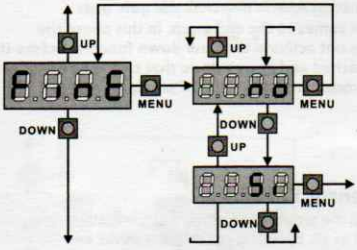
This menu allows viewing the counter of completed opening cycles and it also enables the final user to set up the times of service required.



Automatic Learning of the Operation Time

This menu will activate a procedure enabling the control unit to automatically find the best duration of the operation time.
When you select **Go**, configuration menu closes and the learning cycle starts.

WARNING : The procedure of the operation time automatic learning can be starter only if the Start inputs are set up on the STANDARD mode (StAn).



End of Programming

This menu allows to finish the programming (both default and personalized) saving the modified data into memory.

no Further corrections to carry out: do not quit the programming.
Si End of programming.

THE INSERTED DATA HAVE BEEN MEMORIZED: THE CONTROL UNIT IS READY TO BE USED.

READING OF CYCLE COUNTER

VG-DRC-6 counts the completed opening cycles of the gate and, if requested, it shows that service is required after a fixed number of cycles.

There are two counters available:

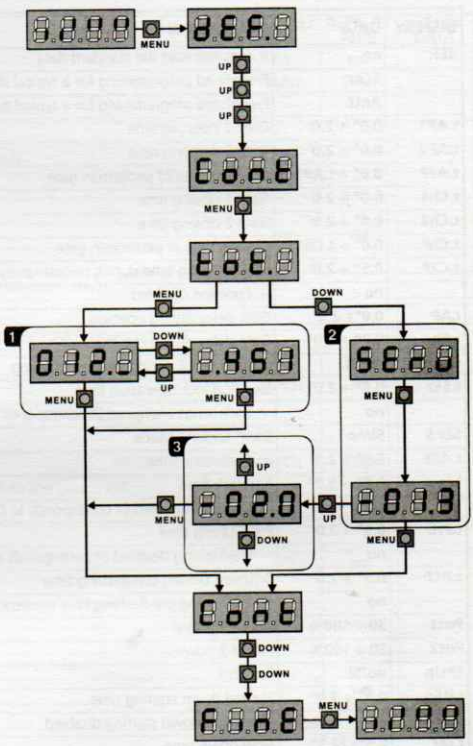
- A totalizing counter for completed opening cycles that cannot be zeroed (option "**tot**" of item "**Cont**")
- A downward counter for the number of cycles before the next request for service (option "**SErv**" of item "**Cont**"). This counter can be programmed according to the desired value.

The side scheme shows how to read the totalizing counter, how to read the number of cycles before the next service is required as well as how to program the number of cycles before the next request for service (as for the example shown, the control unit completed no. 12451 cycles and there are no. 1322 cycles before the next service request.

Area 1 is the reading of the total number of completed cycles; through Up and Down keys, you can alternate the display of thousands or units.

Area 2 is the reading of the number of cycles before the next request for service: its value is rounded down to the hundreds.

Area 3 is the setup of this latter counter; if you press once UP or DOWN key, the current counter value will be rounded up or down to thousands, any following pressure will have the setup be increased or decreased of 1000 units. The previous displayed count will get lost.



Signal of service required

As soon as the counter of cycles before the next request for service is zero, the control unit shows the request for service through an additional 5-second pre-blinking.

This signal will be repeated at each opening cycle, until the installer enters into the counter reading and setup menu, and possibly programs the number of cycles after which the next service will be requested.
In case no new value is setup (that is to say that the counter value is left at zero), the signalling function for the service request will be disabled and no signal will be repeated anymore.

WARNING : service operations shall be carried out by qualified staff only.

OBSTACLE SENSOR OPERATION

VG-DRC-6 is equipped with a sophisticated system that allows detecting if there is any obstacle stopping the door motion. The sensitivity of this system can be adjusted through the **Sens** menu: the higher is the setup value, the prompter will be the control unit intervention if there is any obstacle. If you set on 0, obstacle detection will be disabled.

WARNING : apart from any setup sensitivity value, this system will detect an obstacle only if the door is stopped; therefore, no obstacle braking the door without stopping it will be detected. In addition, this system does not work when the doors moves at slowed down speed.

The control unit reaction in case an obstacle is detected depends on the **t.rAL** menu setup and on the moment when such obstacle is detected.

Slowing down disabled
The door motor on which an obstacle is detected will stop pushing and, for a second fraction, it will be given the command to go backwards, so not to keep its gears under stress. If **t.SEr** menu is set to '**no**' (that is to say, no electric lock) and an obstacle is detected during the last 3 seconds of the closing phase, there will be no reversal, to allow the gate completing its closing.

Slowing down enabled
Obstacle detection will be performed only if the door moves at a normal speed. Both doors will stop and they will be given the command to go backwards for 3 seconds, to take out the obstacle detected. The following Start command will let the former door motion start again. In case the slowing down phase has already begun, no obstacle will be detected and this kind of situation cannot be considered as dangerous since the motor, when working according to its slowing down function, will push the obstacle with a very low pressure.

DISPLAY	DATA	DESCRIPTION	DEFAULT SCor	DEFAULT AntE	MEMO DATA
dEF.	no	It does not load the standard data	no	no	
	SCor	Predefined programming for a typical sliding gate.			
	AntE	Predefined programming for a typical two-door gate			
t.AP1	0.0" ÷ 2.0'	Gate 1 opening time	22.5"	22.5"	
t.AP2	0.0" ÷ 2.0'	Gate 2 opening time	0.0"	22.5"	
t.APP	0.0" ÷ t.AP1	Opening time of pedestrian gate	6.0"	6.0"	
t.Ch1	0.0" ÷ 2.0'	Gate 1 closing time	23.5"	23.5"	
t.Ch2	0.0" ÷ 2.0'	Gate 2 closing time	0.0"	23.5"	
t.ChP	0.0" ÷ t.Ch1	Closing time of pedestrian gate	7.0"	7.0"	
t.C2P	0.5" ÷ 2.0'	Leaf 2 closing time during pedestrian cycle	no	2.0"	
	no	- Function disabled			
r.AP	0.0"÷ 2.0'	Gate delay during opening	1.0"	1.0"	
r.Ch	0.0" ÷ 2.0'	Gate delay during closing	3.0"	3.0"	
C2rA	no/Si	Closing leaf 2 during delayed opening	no	no	
t.SEr	0.5" ÷ 2.0'	Electrical lock operation time	no	2.0"	
	no	- Lock is not energized (it corresponds to 0)			
SEr.S	Si/no	Silent Locking Mode	Si	Si	
t.ASE	0.0" ÷ 2.0'	Lock advance time	0.0"	1.0"	
t.inv	0.5" ÷ 3.0"	Backlash time	no	no	
	no	- Backlash disabled (it corresponds to 0)			
t.PrE	0.5" ÷ 2.0'	Pre-flashing time	1.0"	1.0"	
	no	- Pre-flashing disabled (it corresponds to 0)			
t.P.Ch	0.5" ÷ 2.0'	Different closing pre-flashing time	no	no	
	no	- the closing pre-flashing time corresponds to t.PrE			
Pot1	30 ÷ 100%	Motor 1 power	60	60	
Pot2	30 ÷ 100%	Motor 2 power	-	60	
SPUn	no/Si	Start off	no	Si	
t.P.So	0.5" ÷ 3.0"	Slowed down starting time	1.5"	no	
	no	- Slowed down starting disabled			
t.raL	0.5"÷22.5"	Slow down time	2.0"	2.0"	
	no	- Slow down disabled			
t.CVE	0.0" ÷ 3.0"	Fast closing time after slowing down during closing	0.0"	1.0"	
St.AP		Start in opening	PAUS	PAUS	
	no	- Start command is not available			
	ChiU	- Command close gate			
	PAUS	- Stop the gate and goes in pause			
St.Ch		Start in closing	StoP	StoP	
	Stop	- Start command stop the gate			
	APEr	- Start command open the gate			
tE.M	Si/no	Enabling the motor test	Si	Si	
St.PA		Start in pause	ChiU	ChiU	
	no	- Start command is not available			
	ChiU	- Start command closes the gate			
SPAP		Pedestrian in opening	PAUS	PAUS	
	no	- Pedestrian start command is not available			
	ChiU	- Pedestrian start command closes the gate			
	PAUS	- Gate goes in pause			
Ch.AU		Automatic closing	no	no	
	no	- The automatic closing is not active (it corresponds to 0)			
	0.5"÷ 20.0'	- The gate closes after the setup time			
Ch.tr		Closing after passage	no	no	
	no	- Closing after passage disabled			
	0.5"÷ 20.0'	- Gate stop for a time to be set between 0.5" to 20'			
PA.tr	no/Si	Pause after transit	no	no	

DISPLAY	DATA	DESCRIPTION	DEFAULT SCor	DEFAULT AntE	MEMO DATA
LP.PA	no/Si	Flashlight in pause	no	no	
St.rt		Operation modes	StAn	StAn	
	no	- Start inputs from terminal board are disabled			
	StAn	- Standard operation			
	AP.CH	- Separated opening and closing commands			
	PrES	- Manned operation			
	oroL	- Timer operation			
StoP		STOP input	no	no	
	no	- STOP input not available			
	invE	- STOP command stops the gate: START command starts			
		moving in the opposite direction			
	ProS	- STOP command stops the gate: pressing the START command			
		gate continues the motion			
Fot 1		PHOTO 1 input	APCH	no	
	APCh	- Input is available for the connection of the photocell			
	no	- Not available			
Fot 2		PHOTO 2 input	CFCh	CFCh	
	CFCh	- Photocell is active in closing and also when the gate is still			
	no	- Not available			
	Ch	- Photocell is active during the closing			
tESt		Test of safety devices	no	no	
	no	- Function not active			
	Foto	- Test enabled only for photocells			
	CoSt	- Test enabled only for safety edges			
	Ft.Co	- Test enabled either for photocells or for safety edges			
ShAd		Photocell 2 shadow zone	no	no	
	no	- Function disabled			
	F.ShA	- FOTO2 disabling higher time			
	i.ShA	- FOTO2 disabling lower time			
CoS1	no/Si	Border 1 input (fixed border)	no	no	
CoS2	no/Si	Border 2 input (mobile border)	no	no	
FC.En		Limit switch / Encoder input	no	no	
	no	- Inputs disabled (the controller ignores them)			
	EnCo	- Inputs enabled as encoders			
	FC	- Inputs enabled as limit switches			
riLA	Si/no	Motor Release on Mechanical Stop	Si	Si	
t.inA	0 ÷ 8	Max. gate quiescent time	0	0	
ASM	0.5" ÷ 3.0"	Anti-skid	0.5"	0.5"	
	no	- Function disabled			
SEnS	0 ÷ 10	Obstacle sensor level	5	5	
Cont		Counter viewing	tot	tot	
	tot.	- Total number of completed cycles (views in thousands or in units)			
	Man	- Number of cycles before the next request for service (such a number			
		has been rounded off to hundreds and it can be set up on 1000-step;			
		in case it is set up on 0, the request will be disabled and no will be viewed)			
APPr		Automatic learning of the operation time	no	no	
	no	- Function disabled			
	Go	- Start up of the automatic learning procedure			
FinE		End of programming	no	no	
	no	- It does not exit from the program menu			
	Si	- It exits from the program menu by storing the setup parameters			

OPERATION DEFECTS

This paragraph shows some possible operation defects, along with their cause and applicable remedy.

ON/OFF led does not switch on

It means that there is no voltage on control unit card.

1. Before acting on the control unit, disconnect through the disconnecting switch on the power line and remove the power supply terminal.
2. Be sure that there is no voltage break upstream the control unit.
3. Check whether the fuse is burnt-out, if so replace it with same value.

OVERLOAD led is on

It means that there is an overload on accessory power supply.

1. Remove the extractable part containing terminals 11 to 20. OVERLOAD led will switch off.
2. Remove the overload cause.
3. Reinsert the terminal board extractable part and check that this led is not on again.

Error 1

The following writing appears on display when you exit from programming:

It means that changed data could not be stored.
This kind of defect has no remedy and the control unit must be sent back for repair.

Error 2

When a Start command is given and the gate does not open and the following writing appears on display:

It means that triac test failed.
Before sending the control unit back for repair, be sure that motors have been properly connected.
In case motor 2 is not connected, be sure that **t.AP2** menu item is on **0.0**".

Error 3

When a Start command is given and the gate does not open and the following writing appears on display:

It means that the photocell test failed.

1. Be sure that no obstacle interrupted the photocell beam when the Start command was given.
2. Be sure that photocells, as enabled by their relevant menus, have been installed actually.
3. If you have photocells 2, be sure that **Fot2** menu item is on **CF.CH.**
4. Be sure that photocells are powered and working; when you interrupt their beam, you should hear the relay tripping.

Error 4

After few centimeters during the opening phase the gate stops and the display shows:

It means that the limit switches in closing phase have not been released. Make sure that the limit switches are correctly connected and the gate, opening, let the limit switch open.

Error 5

Once given a start control, the gate does not open and the display shows:

It means that the test of the safety edges failed. Make sure that the control unit driving the safety edges is correctly connected and properly working. Make sure that the safety edges enabled by menu are actually installed.

Error 7

This indicates an error in the encoders' operation.

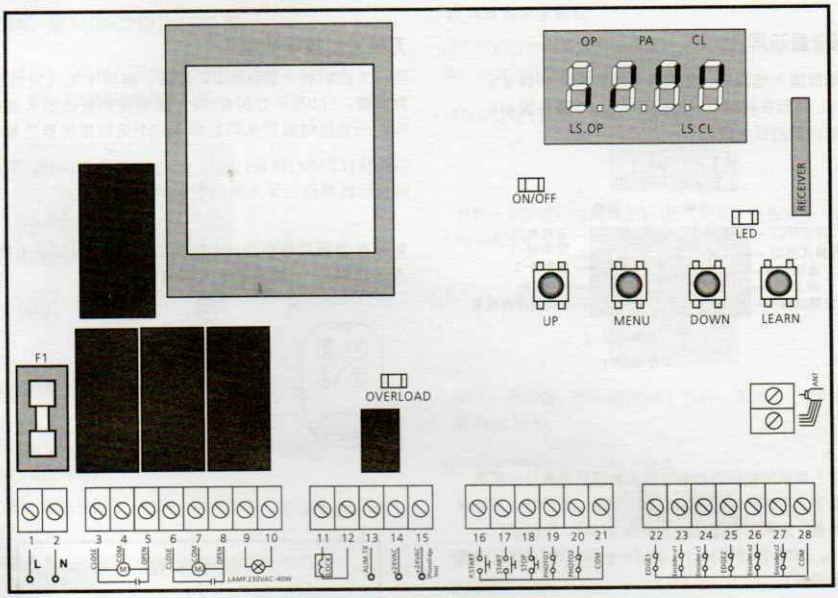
There are three possible causes:

1. With the encoders connected, even if they are not enabled, for a few instants after movement of a gate panel. This means that the connection to the encoder for that gate panel is reversed. Exchange terminal **17** with **18**, or **19** with **20**
2. With the encoders enabled, once a START command is received: This means that the encoders have not been initialized. For the encoders to operate correctly, the self-learning procedure must be performed.
3. With the encoders enabled and initialized, a few seconds after movement begins: This means that an encoder is NOT correctly operating. Encoder malfunction or broken connection

Too long pre-blinking

When a Start command is given and the blinker switches on immediately but the gate is late in opening, it means that the setup cycle count down expired and the control unit shows that service is required.

初步安装及使用操作说明



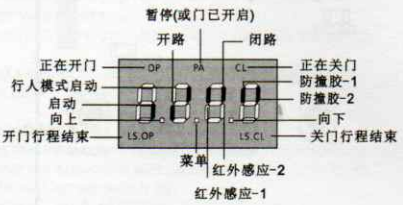
1	火线 230 VAC
2	零线 230 VAC
3	电机-1反转输入
4	电机-1公共端
5	电机-1正转输入
6	电机-2反转输入
7	电机-2公共端
8	电机-2正转输入
9-10	闪灯 230VAC 40W
11-12	电动门锁 12VAC
13-14	红外感应测试电源输出
14-15	24VAC输出(供红外感应或其它设备用)
16	接入用于控制门半开启的常开类型外接按键
17	接入用于控制门全开启的常开类型外接按键
18	停止指令信号输入端（常闭）
19	常闭型红外感应-1
20	常闭型红外感应-2
21	公共端

22	常闭型防撞胶-1	
23	门-1开门限位开关输入	传感器型电机-1
24	门-1关门限位开关输入	
25	常闭型防撞胶-2	
26	门-2开门限位开关输入	传感器型电机-2
27	门-2关门限位开关输入	
28	公共端	
F1	5A 230VAC 保险丝	
ON/OFF	电源指示灯	
OVERLOAD	电源过载指示灯	
LED	学码指示灯	
LS.OP	开门行程指示	
LS.CL	关门行程指示灯	
OP	开门程序指示灯	
PA	暂停（或门已开启）	
CL	开门程序指示灯	

初步安装及使用操作说明

控制板显示屏

当控制板接上电源后，显示屏正常持续1.5秒钟显示8.8.8.8.，然后在持续1.5秒显示Pr 2.4（固件版本），显示屏功能测试完成。



显示屏上显示控制板各功能连接的物理状态和程序模式，显示数字上半部纵向黑条，为关门回路，显示数字下半部纵向黑条，为开门回路。（上图为 START、P.START 、FOTO-1、FOTO-2、COSTA-1、COSTA-2 和 STOP全部正确连接的示例图）

显示屏数字之间的黑点代表控制板上的程序选择按键状态，当按下按键时，会显示出对应的黑点。

显示屏下端标识表示开门或关门的行程终点。当显示 **LS. OP/LE. CL**时表明已完成开门或关门。

警告：如果在行程终点串联连接电机，这些功能均失效。

显示屏上端标识显示的状态如下：

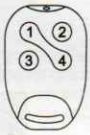
- **OP**表示正在开门。若箭头闪烁，表示开门过程中安全检测装置检测到障碍物（如红外感应或防撞胶）
- **PA**表示门在暂停状态。若箭头闪烁，表示门超过设定的自动关门时间并执行该操作
- **CL**表示正在关门。若箭头闪烁，表示关门过程中安全检测装置检测到障碍物（如红外感应或防撞胶）

无线发射器学码操作:

按一下控制板上的[LEARN]按键，再按下无线发射器上的任意按键，LED指示灯闪烁2次，说明控制板已学入发射器的编码。一块控制板最多可以学入32个无线发射器的编码。

当按住[LEARN]按键10秒以上，LED指示灯闪烁10次，说明控制板已经清除已学入的发射编码。

如果在学码过程中控制板LED指示灯闪烁5次,表示控制板已入了该编码,无需重复学入该编码。



- 按键-1　启动
- 按键-2　停止
- 按键-3　启动（行人模式）

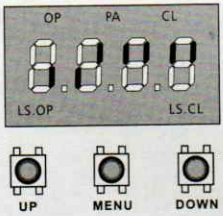
技术参数

技术参数	
输入电源	230V/50Hz
电机的最大功率	2x700W
24VDC最大加载功率	10W
工作温度	-20 ÷ +60 ℃
保险丝	F1 = 5A

初步安装及使用操作说明

使用DOWN、MENU和UP键进行设置

控制板通过不同的菜单显示来设定时间和功能，用户可通过DOWN，MENU和UP键设定所需功能。



按住MENU键直到显示屏出现dEF，进入功能设定程序。

特定的功能项目均有对应的显示方式：显示屏会显示当前选择的功能项目。

按下DOWN键，则选择到下一选项，按下UP键，则返回上一选项。

按下MENU键进入当前选项，用户可根据需要进行更改。

菜单最后选项为（FinE），选择该选项会保存及执行已更改的项目设定，并返回到正常操作界面。用户必须通过该选项退回主界面，修改的数据才会被保存，否则相关项目修改无效。

警告:如果进入功能设定菜单后，超过1分钟不作任何操作，则自动返回主菜单，不保存设定更改。

长按DOWN键，菜单选项会快速向后滚动至FinE选项。同样的，长按UP键则快速向前滚动至dEF选项。

下列为三种菜单选项：

- **功能设定菜单**
- **时间设定菜单**
- **数值设定菜单**

功能设定菜单设置

用户可根据自身所需，在功能设定菜单选择所需的功能项目进行更改。用户进入功能设定菜单时，会显示当前的功能选项，用户可通过DOWN和UP键选取所需更改的功能项目，按MENU键确认进入更改，选择好有所需要的设定后再按MENU键确认并退出。

时间设定菜单设置

用户可通过时间设定菜单修改时间。当用户进入该菜单后，会显示出当前默认的时间。

- 时间设定在1分钟以下如下操作：

每按一下UP键，时间增加0.5秒；同样，每按一下DOWN键，时间减少0.5秒。

- 时间设定在1到10分钟如下操作：

每按一下UP键，时间增加5秒；同样，每按一下DOWN键，时间减少5秒。

- 时间设定在10分钟以上如下操作：

每按一下UP键，时间增加30秒；同样，每按一下DOWN键，时间减少30秒.

长按UP按键可在当前选择的时间范围内快速增加时间，同样，长按DOWN键则快速减少时间直到0秒。

在某些情况下，数值设定为0意味着不适用某项功能，在该情况下，数值显示为“NO”

按下MENU键执行当前设定的时间并退出菜单。

数据设定菜单设置

数据设定菜单与时间设定菜单操作一样，但数据设定菜单可以设定任意数值。

长按UP键和DOWN键，数值会缓慢增加或减少。

初步安装及使用操作说明

设置指南

本文主要介绍进行简单实用的设置就可以让控制板立即进入工作状态。
建议用户按仔细阅读以下说明，为了可以快速检查电机、控制板及外接附件有无正确连接，及更改一些不需要的功能设定。

警告：进行自动学习程序前，必须要确保传感器（已安装的情况下）正常运作。

请查阅“控制板功能设定”，查找所需设定的选项。
自动学习程序：控制板自动计算记录开门关门行程。

1. 调出默认设定类型（dEF选项）。选择AntE选项，再选择Scor选项选择门的种类（平移门、卷闸门、双页门等等）
2. 假如安装的门只有一台电机的，将t.AP2开门时间设为0。
3. 如果没有安装电动门锁，将t.SEr，t.ASE和t.CvE的数值设为0
4. 根据所安装的安全保护设备设定StoP，Fot1，Fot2，CoS1，CoS2和FC.En选项。
5. 开始运行自动学习程序（Appr选项）。

进行最后一步操作后，控制板关闭设定菜单，并储存设定的参数（自动执行）。

双电机自学程序：

- 当传感器正常及设定好开门关门限位时，门会先自动开门，到达限位后再自动关门直到到达关门限位才停止，完成自动学习行程。但要确保两扇门没有重叠。
- 如果在自学过程中限位及传感器都不起作用，请先确保门在完全关闭的情况下再开始自学程序。门在学习开门行程时要到终点或开门限位才会停止。
- 如果传感器失效或发现控制板不能识别位置信号，则必须在第一扇门到达开门上限位置时发送一个“开始”指令，第二扇门也到达上限位置时发出第二个“开始”指令。
- 门在学习关门行程时要到终点或关门限位才会停止。
- 如果传感器失效或发现控制板不能识别位置信号，则必须在第一扇门到达关门上限位置时发送一个“开始”指令，第二扇门也到达上限位置时发出第二个“开始”指令。

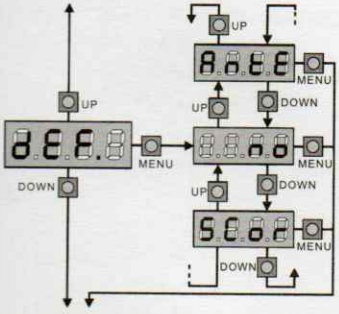
单电机自学程序：

- 当传感器正常及设定好开门关门限位时，门会先自动开门，到达限位后再自动关门直到到达关门限位才停止，完成自动学习行程。
- 如果在自学过程中限位及传感器都不起作用，请先确保门在完全关闭的情况下再开始自学程序。门在学习开门行程时要到终点或开门限位才会停止。
- 如果传感器失效或发现控制板不能识别位置信号，则必须在门到达开门上限位置时发送一个“开始”指令。
- 门在学习关门行程时要到终点或关门限位才会停止。
- 如果传感器失效或发现控制板不能识别位置信号，则必须在门完全在关门上限位置时发送一个“开始”指令。

控制板功能设定

本文将详细说明控制器所有功能及逐步进行操作设定，用户可以对所有或适合使用的功能进行设定。
同样，用户完成相关设定后必须要通过FinE选项返回住界面，相关设定才被保存并运行。

本控制板给用户提供了自动学习程序，因此，我们也建议用户先进行自学程序，再根据自身使用情况修改相关的功能。



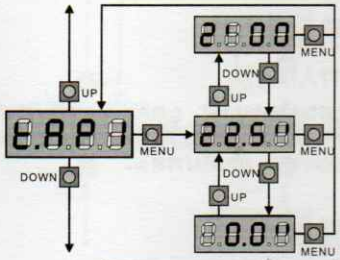
恢复出厂设定

通过一个指令可将所有设定均还原为默认设定（参考后面的参
包括以下两种默认设定：

AntE 可安装电动门锁的双页门默认设定
Scor 没有电动门锁的平移门默认设定

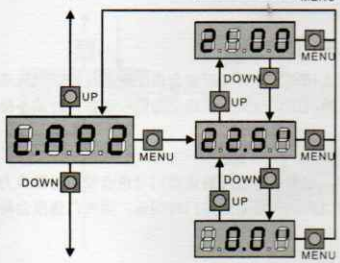
还原出厂设定后，其他菜单选项及参数均被改写，退出后会自
下一选项。

初步安装及使用操作说明



门-1开门时间

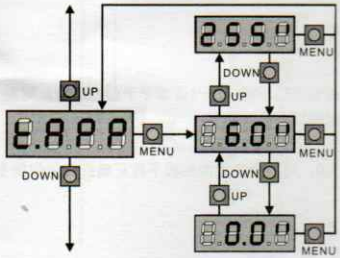
电机-1根据这设定的开门时间执行开门操作；如果开门过程中遇到障碍，电机将停止开门操作。



门-2开门时间

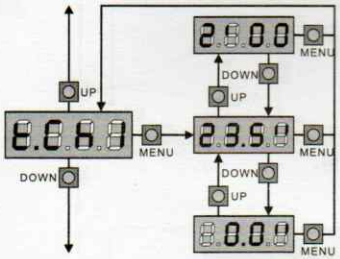
电机-2根据这设定的开门时间执行开门操作；如果开门过程中遇到障碍，电机将停止开门操作。

警告：假如不使用第2台电机，请将数值设为0；在这情况下，控制板将忽略电机-2的设定及门开启的时差。



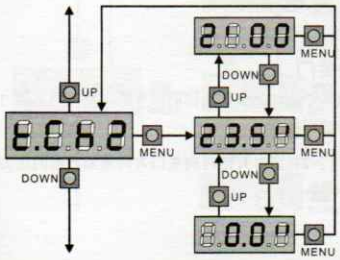
门半开启时间（行人模式）

当控制板接收到行人模式开门指令时，只有门-1开启，且开启较短行程。设定的数值不得超过t.AP1选项的数值。



门-2关门时间

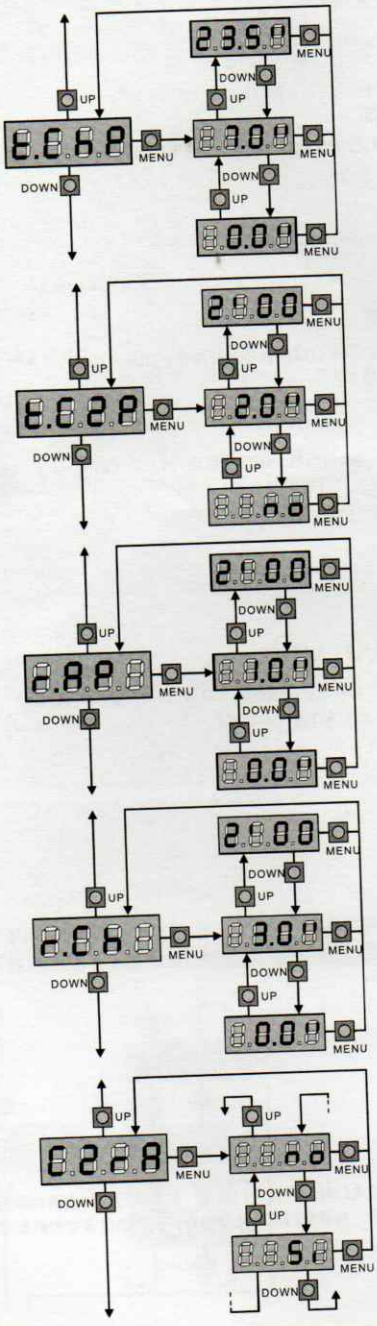
电机-1根据这设定的关门时间执行关门操作；如果关门过程中遇到障碍，电机将停止关门操作。为避免门不能完全闭合，我们建议设定的时间要比t.AP1的时间稍长。



门-2关门时间

电机-2根据这设定的关门时间执行关门操作；如果关门过程中遇到障碍，电机将停止关门操作。为避免门不能完全闭合，我们建议设定的时间要比t.AP2的时间稍长。

初步安装及使用操作说明



门半关闭时间（行人模式）

当控制板再一次接收到行人模式指令时，会根据当前选项设定的
间执行关门操作，但不得超过t.CH1设定的时间。为避免造成门不
完全关闭，建议设定的时间比t.APP1的时间稍长。

门-2在行人模式关门的时间

在门半开过程中（行人模式），门-2可能会由于重量较轻或大风
成轻微位移，若再这情况下门-1关门可能会与门-2碰撞，造成不
完全关闭。

为避免这种情况发生，在关门的过程结束前门-2也会输出轻微推
如果设定的时间比门-1和门-2设定的关门时间长，则关门速度会
低。

延时开门

在开门过程中，为了避免两门相撞，门-1必须早于门-2启动。则
设定门-2的延时启动时间。

假如用户设定的时间为0，可能会造成控制板不能正确执行关门

延时关门

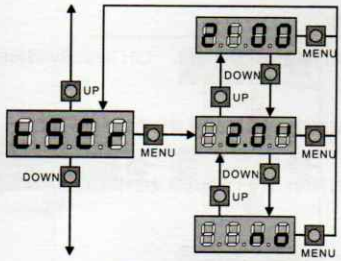
在关门程序中，为避免两门相撞，门-2比须先于门-1关闭，则
定门-1的延时关闭时间。

延时开门时门-2关门

有一些门，门-2是靠一个阻挡器保持关闭的，有时可能在会在
开启而留下门-2时形成阻挡。

这项参数设定可以使门-2在延时开门时向关门方向施加轻微的

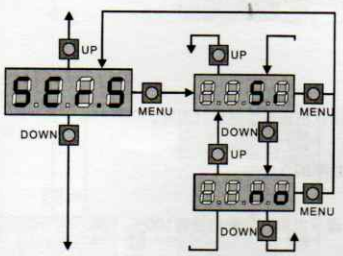
初步安装及使用操作说明



电动门锁开启时间

在开门前，控制板会对电动锁通电使其开锁以便门可以开启。tSEr选项设定通电时间。

警告：如果门没安装电动门锁，请将数值设为0。

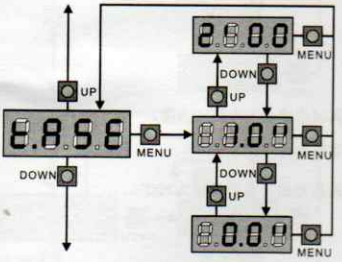


低噪锁门模式

用户可通过这选项设定电动门锁的锁门模式

Si 低噪模式（140HZ）
no 标准模式（50HZ）

注意：选择低噪模式时，会以高频电压输出从而降低电动门锁的噪声。但在某些情况下，可能会无法开锁。如果出现这种状况，请选回标准模式。

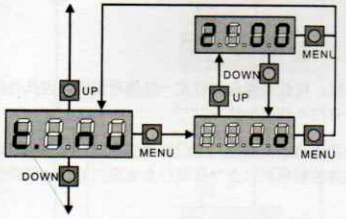


预解锁时间

当电动门锁通电，门在t. ASE设定的时间前保持不动，以确保电动门锁更易解锁。

如果t. ASE设定的时间比t. SEr时间短，在门开始移动时，电动门锁也会持续通电。

警告：如果没有安装电动门锁，请将数值设为 0。



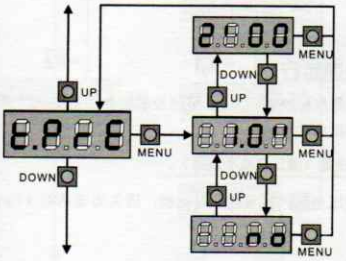
后座作用时间

在解锁时对电机发送关门指令有助于解锁。

控制板按照设定的时间控制电机向关门方向进行小力度运动。

后座作用会在电动门锁解锁前生效。设定的预解锁时间比后座作用时间长可能会导致指令抵消。

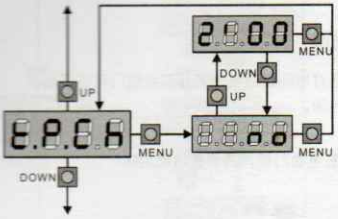
警告：如果没有安装电动门锁，请将数值设为0。



警示灯预闪时间

在门每次移动之前，闪灯会按照t. PrE设定的时间提前启动，提醒用户门注意避让。

初步安装及使用操作说明



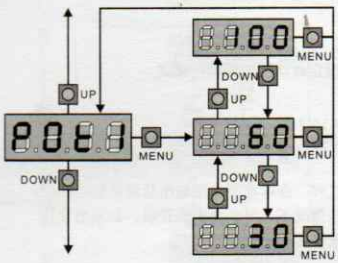
关门闪灯预闪时间

本选项用来独立设定关门时警示灯预闪时间。（开门时的预闪时间t. PrE设定）

选择no时，无论关门或开门时都按照t. PrE设定的时间执行预闪。

如果用户只需要关门时预闪，则在t. PCh选项设定时间，将t. PrE选选择no则可。

注意：一般不会只设定开门预闪。

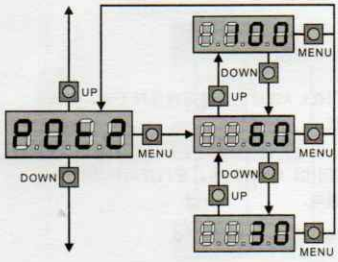


电机-1力度调节

用户可在这一选项中调试出适合的电机-1力度。

显示的参数代表最大功率的百实比。

警告：如果安装的是液压电机，将数值设为100%。

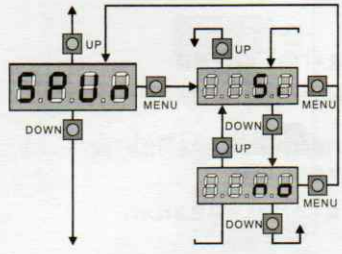


电机-2力度调节

用户可在这一选项中调试出适合的电机-2力度。

显示的参数代表最大功率的百分比。

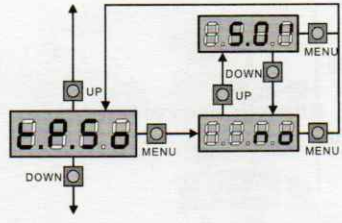
警告：如果安装的是液压电机，将数值设为100%。



全功率启动

门最初由静止到移动时，可能会由自身引发一些物理惯性，因此当较重时，启动时就会有门不移动的情况。

如果启用了SPUn（全功率启动）功能，在门移动的头2秒里，控制略Pot1和Pot2的设定并控制电机以全功率运行来克服门启动时受



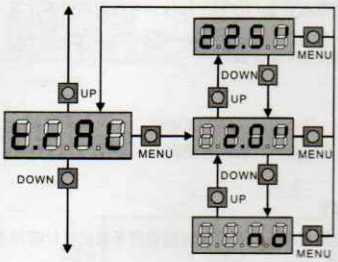
慢启动功能（慢速运行）

当启用这功能时，在每扇门移动的第1秒里，控制板会控制电机以的功率启动，实现慢速启动功能。

请注意（液压电机不适用）：

该项功能不适用于液压电机，若安装该种电机，请关闭该功能（

初步安装及使用操作说明



慢停时间

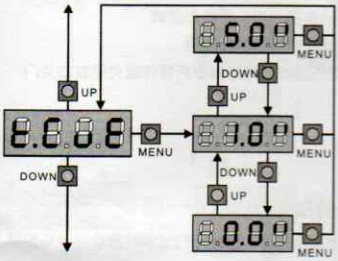
启用当前功能后，在门每次移动的最后几秒内。控制板会降低电机功率，避免门在移动到终点时发生剧烈碰撞。慢停时间数值不得超过t. AP1设定的数值。

警告:

- 假如自动学习程序不能正常运行，建议先关闭慢停功能，使控制板正常测量计算开门关门时间后，再开启该项功能。控制板会自动计算由慢停引起的延时运行时间。
- 半开启时间t. APP比t. AP1设定时间短时，在行人模式下的开门过程将不会执行慢停功能。

请注意（液压电机）：

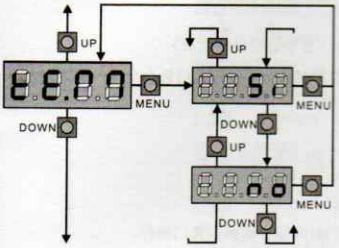
如果用户安装的是液压电机，该功能可能不会正常运行。这时请关闭该项功能。



关门慢停后反弹时间

当设置了大于0的慢停时间后，则有可能会因为关门时慢停速度过慢，引起电动门锁锁不上的情况。若开启这项功能，当减速后控制板会发出一个常速运作指令（意思是不再减速），按照设定的时间执行，然后门短时间执行开门动作（1秒以内），避免电机长时间受压。

请注意：如果门不安装电动门锁或者慢停功能关闭时，请将数值设为0。



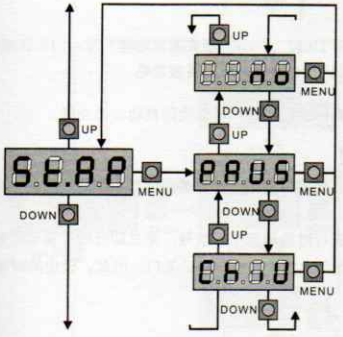
开启电机测试功能

当电机没有正确连接到控制板对应的接线端子，但然能受继电器或无线发射器控制时，相关的控制设备就不能正常通电，则电机功能测试为失败。

当前选项能检查相关控制设备能否各自正常运行。

Si 开启测试
no 关闭测试

请注意：这项测试对门能否安全使用是非常重要的，若用户要关闭该项功能，请确保相关设备与控制板连接正确。（不建议关闭）



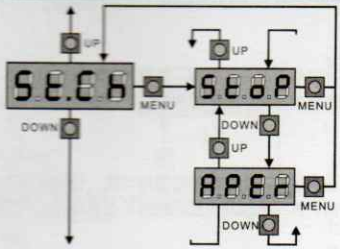
开门过程中的指令接收

用户客可通过前选项设定控制板在开门过程中接收信号后应执行哪种指令。

PAUS 第一个指令停止，第二个指令关门
ChiU 立即关门
no 完成整个开门操作（忽略所用信号指令）

选择 PAUS 控制板设定为“一步接一步”的操作逻辑。
选择 no 控制板设定为只执行开门的操作逻辑。

初步安装及使用操作说明

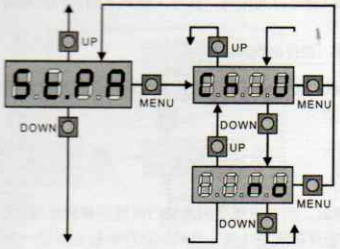


关门过程中的指令接收

用户客可通过前选项设定控制板在关门过程中接收信号后应执行
令。

StoP 门停止并认定为完成一个指令循环
APEr 门再次开启

选择StoP 控制板设定为“一步接一步”的操作逻辑。
选择APEr 控制板设定为“只能开门”的操作逻辑。

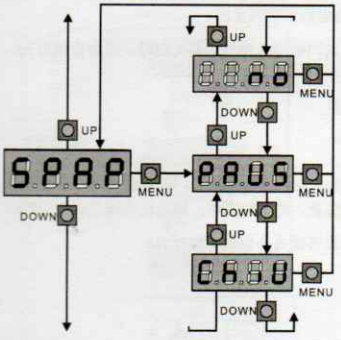


暂停过程中的指令接收

用户客可通过前选项设定控制板在开门后暂停时接收信号后应
令。

ChiU 门开始关闭
no 忽略所有信号指令

选择ChiU 控制板设定为“一步接一步”的操作逻辑
选择no 控制板设定为“只能开门”的操作逻辑
**选项以外的情况，如果门时先接收到停止指令后暂停或关闭自
功能时，接收新指令后关门。**

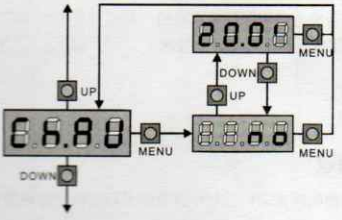


行人模式开门过程中的指令接收

用户客可通过前选项设定控制板在行人模式开门过程时接收信
哪种指令。

PAUS 第一个指令停止，第二个指令关门
ChiU 立即关门
no 完成整个开门操作（忽略所用信号指令）

警告：任何情况下，行人模式时接收全开指令门只会全开，而
直会被忽略。



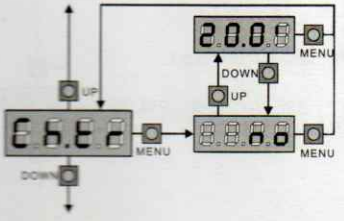
自动关门

控制板会在当前选项设定的时间后自动执行关门操作。

假如启用St.PA项，即使还没过完设定的时间，当控制板接收
执行关门操作。

将数值设为0来关闭自动关门功能（”no”项关闭该功能）时
到信号后才关闭，这种情况下St.PA项的设定将被忽略。

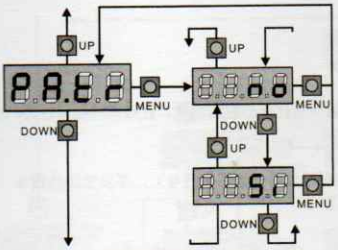
假如控制板接在暂停时收到停止指令时，将会关闭自动关门



行人通过后自动关门

启用这项自动操作功能后，暂停时间会在红外感应生效后按
开始计算。
如果红外感应在开门动作进行时检测到中断信号，则立即开
这项功能允许用户完全通过门之后快速执行自动关门，因此。
一般要少于Ch.AU的时间。
当该项选择no时，执行Ch.AU项
关闭自动关门功能时，该功能不能用。

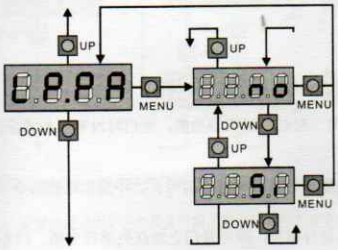
初步安装及使用操作说明



快速自动关门

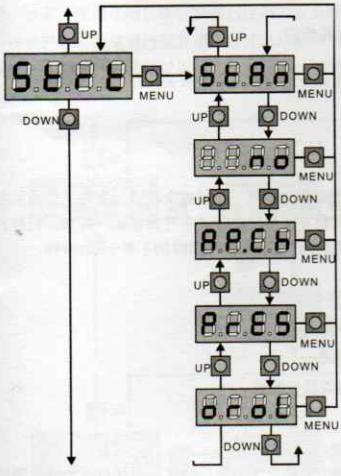
为了尽可能缩短开门时间（即暂停时间最短），就有必要在行人通过红外感应时使门立即暂停。如果开启这项这项功能，则按照Ch. tr项用设定时间进行自动关门。

如果安装了两对红外感应，则自动关门时间就是两对红外感应先后识别到行人通过门时的中断信号的之间时间差。



暂停时警示灯闪烁时间

警示灯一般在门移动时才会闪烁，然而，当开启当前功能后，警示灯也能在暂停时闪烁。



开始指令输入功能

用户可通过当前选项选择指令输入执行模式：

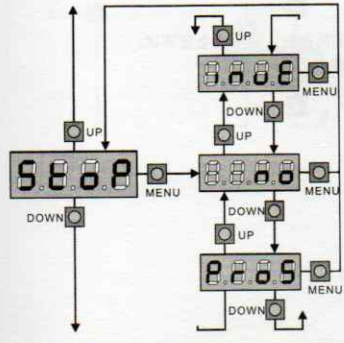
StAn 根据菜单设定执行开门和半开门指令。

no 只能通过无线发射器按StAn项设定输入指令，忽略外接设备由接线端子输入的指令。

AP.CH 开门指令输入后一直执行开门操作，半开门指令输入后一直执行关门操作。

PrES 手动操作 持续输入开门指令信号，门开启；信号停止，门停止。持续输入半开门指令信号，门关闭；信号停止，门停止。（即长按按键，门移动；松开按键，门停止。）

oroL 计时操作 持续给予开门或半看门指令信号时，执行开门。当信号中断后，倒计时（按暂停时间）自动执行关门。



停止指令输入

用户可通过当前选项选择停止指令对应的执行操作

no 不接收停止指令。

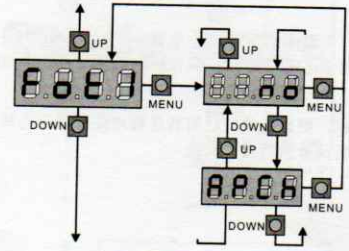
ProS 输入停止指令门停止移动，在发送开门指令，门继续移动。

invE 输入停止指令门停止移动，在发送开门指令，门向相反方向继续移动。

停止指令输入设定能决定门停止后再接收到开始指令会向哪个方向开启，例如由于遇阻（防撞胶或红外感应生效）停止。如果选择no，门再接收到开始信号后朝相同方向移动。

注意：在暂停（即门开启后）时，停止指令会停止暂停时间计算，当接收到下一个开始指令始终执行关门操作。

初步安装及使用操作说明

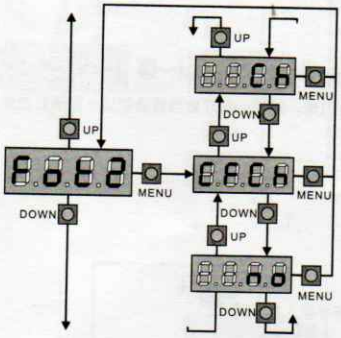


红外感应-1信号输入

用户可通过当前选项开启第一对红外感应的功能，红外感应信号在
时都输入。

no 关闭红外感应（控制板忽略红外感应信号），不发生跳线
不停止电机运作）。

AP.CH 开启红外感应。



红外感应-2信号输入

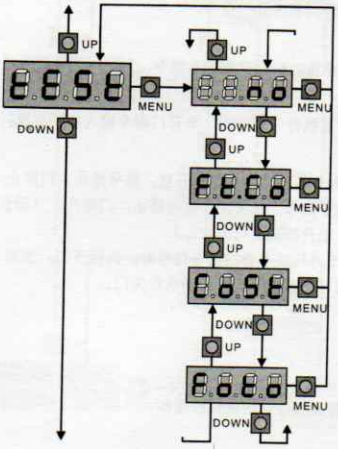
用户可通过当前选项开启第二对红外感应的功能，开门时没有红外
（关门时才有）。

no 关闭红外感应（控制板忽略红外感应信号），不发生跳线
不停止电机运作）。

CF. CH 门静止时也可输入红外信号：即当开门之前红外感应中断。
启。

CH 只在关门时开启红外感应。

警告：用户选择者这一选项时，请必须关闭红外测试功能。



安全设备测试

当前功能是为了使用户能更安全地使用，控制板会在进行正常工作
全设备测试。假如没有检测到异常情况，门才会开始移动。否则，
动以及警示灯不闪烁保持亮5秒。整个测试持续时间不多于于1秒钟。

no 关闭测试

Foto 只对红外感应进行测试

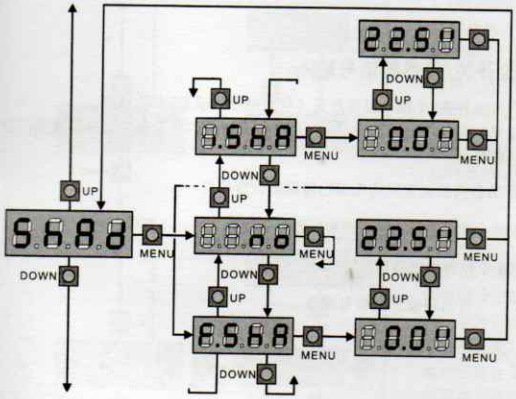
CoSt 只对防撞胶进行测试

Ft.Co 对红外感应和防撞胶进行测试

警告：为了在安装设置过程中能更安全地进行操作，请开启安全设

警告：请确保安装了特定的防撞胶才启用安全胶测试。

初步安装及使用操作说明



红外感应-2阴影区

某些红外设备可能会出现门移动到红外感应之前就中断了红外线的情况。此时，会导致门不能完全关闭。开启这项功能，红外感应会暂时关闭来让门顺利通过。只有第二对红外感应可以不输入信号，因此这项功能也只能在关门时启用。

门移动遮挡红外感应而不动作的时间，是从门体在完全打开的起始位置时开始执行关门动作测量出来的。

请按照以下步骤设定红外感应阴影区区间：

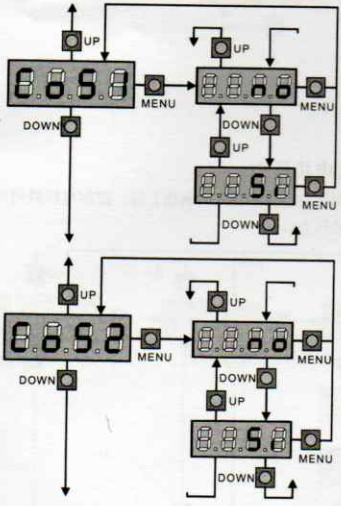
- 先关闭当前功能，将门置于完全开启位置，然后关门并计算红外感应的操作时间。
- 然后在i.ShA项设定一个稍低的时间值和在F.ShA项设定一个个稍高的时间值

- 则第二对红外感应在关门时按照i.ShA和F.ShA之间的时间不动作。

警告：此项功能适用于已安装并开启了限位开关但不能正常关门的情况。

警告：不正当使用这项功能会损害门使用的安全性。建议用户**注意**以下信息：

- 门移动时不可被免遮挡红外感应时才开启这项功能。
- 设置红外感应阴影区间时尽可能收窄区间，根据门移动速度不同尽可能修正时间差。



防撞胶-1信号输入

用户可通过当前选项开启防撞胶-1输入：

no 关闭防撞功能（控制板忽略防撞信号），不发生跳线指令（即不停止电机运作）。

Si 开启防撞功能。

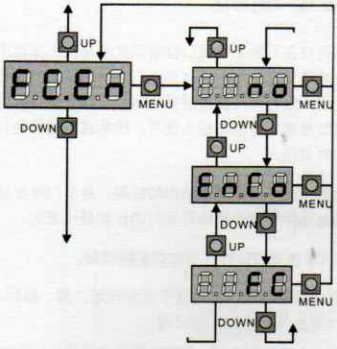
防撞胶-2信号输入

用户可通过当前选项开启防撞胶-2输入

no 关闭防撞功能（控制板忽略防撞信号），不发生跳线指令（即不停止电机运作）。

Si 开启防撞功能。

初步安装及使用操作说明



限位开关/传感器信号输入

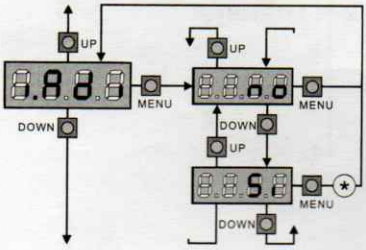
用户可以外接4个物理限位开关（常闭触点）或者2个传感器。
限位开关在门移动时工作，向控制板发送每扇门已到达完全开门或关门位置的信号。

传感器会向控制板发送每扇门精确的位置信息。

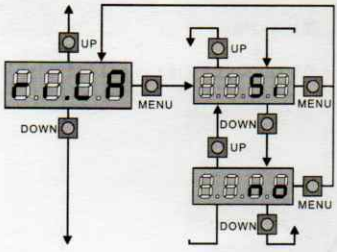
no 关闭到限功能（控制板忽略到限信号），不需跳线。

EnCo 开启传感器信号输入

FC 开启限位开关信号输入



i. Adi没有对应功能，请忽略该项。



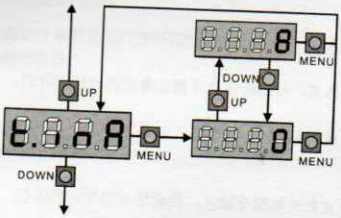
强制停止时释放电机压力

当门被强制停止（到达限位，限位开关跳线）时，控制电机瞬间反向转动来减少电机齿轮间的压力。

Si 开启功能

no 关闭功能

初步安装及使用操作说明

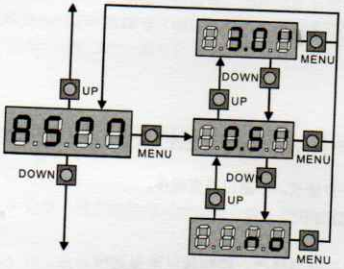


门最大静止时间

某些电机（主要是液压电机）在数小时静止后会变得松弛（压力不足），则不利于门的关闭（行程变短）。

用户可通过这项功能设定门最长的静止时间：1到8小时。如果设为0，则关闭这项功能。

如果门静止（为完全关门状态）超过最大的设定时间，VG-DRC-6将会控制门关闭10秒，以确保门能完全关闭。

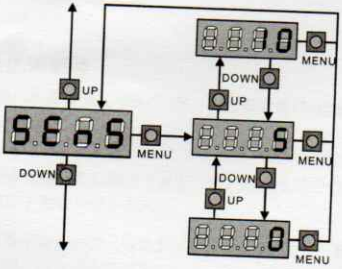


行程补偿功能

如果在开门或关门过程因接收到指令信号或红外信号而中断，门体会则会按照设定的时间执行反向移动，而控制器将电机运行时间当做行程时间，来进行反向移动使门体返回原来的位置。但实际上这样控制方式并不会很有效，尤其在门体质量较大的情况下，因惯性作用，在电机反向运行之前会在原来运行方向产生一段位移，而控制器并没有将这段位移计算在“回到原来位置的行程”之内。

门体在反向移动时可能会不能回到原来的位置，因此，控制器有必要增加一小段行程用来覆盖惯性产生的位移。

警告：如果安装并开启了限位传感器，控制器则具备了检测门体是否完全开启或完全关闭的能力，无需再开启这项功能。



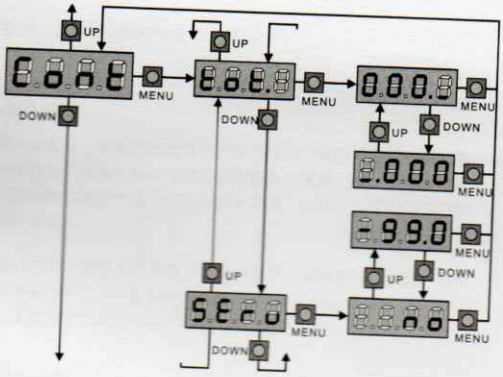
遇阻灵敏度调节

用户可通过当前选项调节合适的遇阻灵敏度。有10个等级可选，但选择0时，为关闭该项功能，灵敏度随数值递增而递增。

控制板会根据每个电机设定的功率自动选择合适的遇阻灵敏度等级。

如果认为安全运行时速度不够快，可以轻微增加灵敏度等级。

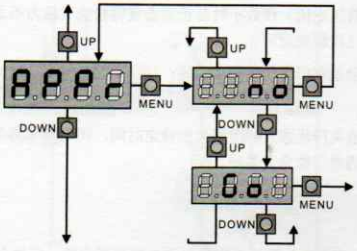
如果出现门移动时没有遇阻就停止，请降低灵敏度等级。



查看计数器

用户可以通过此项功能查看门完全开启所用的时间，用户也可以按照自己的要求来设定运行时间。

初步安装及使用操作说明

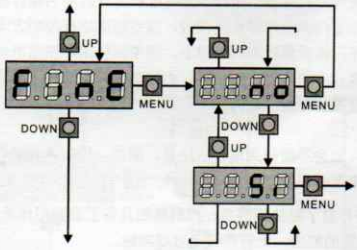


自动学习运行时间

用户可以通过当前选项使控制板自动计算出最适合的运行时间。

当选择Go时，菜单选项会关闭，并开始自动学习操作。

警告：在StAn项设定好开始指令输入，自动学习程序才会运行。



结束设置

用户通过当前选项进行各项功能设定更改（默认设定或个人设定）的存档。

no 还要进一步修改，不退出设定程序。

Si 保存并退出程序。

各项功能设定已经完成修改：控制板已准备运行。

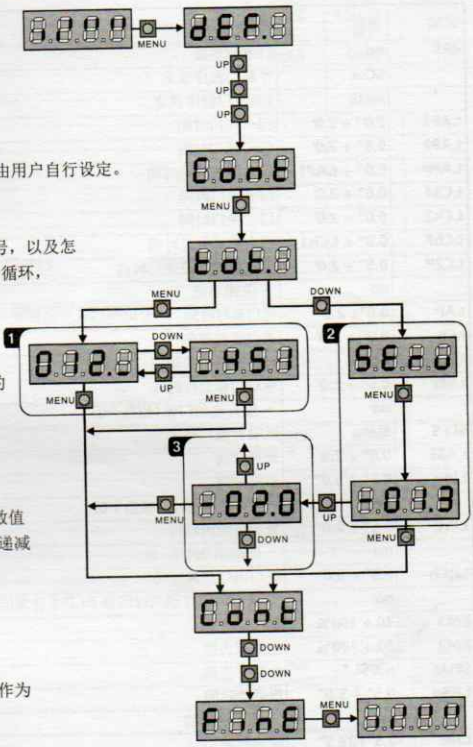
初步安装及使用操作说明

循环计数器读数

控制器会计录完整开门循环次数，如有所需，可以调出所要的循环数目。

有以下两种计数器：

- 累计计数器，数值不为0（在Cont选项选择tot）
- 当前完成的循环的编号（在Cont选项选择SErv）。这个数值可由用户自行设定。



旁边的图演示累计计数器怎样读数，怎样读取当前前的循环数编号，以及怎样设定当前的循环数编号（如图例所示，控制板已完成第12451号循环，下一次循环为第1322个循环）

区域-1 读取已完成的总循环数；用户可通过上下按键交换显示的数量单位。

区域-2 读取当前完成的循环的编号，数值单位可向下调至百位。

区域-3 设定编号计数器，当用户按下上下按键时，当前显示的数值会向上或向下调千位，之后每按下一次都以千位递增或递减进行设定。但之前显示的数值会丢失。

服务请求信号

当当前的服务请求循环数为0时，控制板会通过每5秒闪灯一次来作为服务请求信号。

信号将会在每次开门循环中重复出现，直到安装者进入读取及设定菜单，设定下次服务请求的编号。

如果没设定新的数值（也就说计数器数值只为0），服务请求信号功能将会关闭，以及不会重复警示信号。

警告：该操作必须由专业人士操作。

遇阻功能

本产品配备了非常细致的操作系统使得在门移动时发现或遇到障碍时停止。须通过Sens选项设定合适的灵敏度：数值设定得越高，则控制板灵敏度越高，则容易感应障碍。如果数值设为0，则关闭遇阻功能。

警告：除了设定灵敏度外，只要门停止，系统就视为遇阻。因此，若减慢门的移动速度而不使门停止则不认定为遇阻。所以，当门移动速度慢时遇阻功能不起作用。

控制板根据t.rAL设定，在遇到障碍及检测到障碍时做出反应。

关闭慢停功能

当门机在发现到障碍时会停止推动，以及在瞬间接收到反向转动指令，避免门机齿轮受到压力。如果t.SEr选项不设为no（即没安装电动门锁），以及在关门的最后3秒内发现障碍物时，为了使门完全关闭，将不会执行反向移动。

开启慢停功能

当门常速移动时才能检测到障碍。执行遇阻功能时，每扇门都会停止移动并反向移动3秒。当再次接收到指令后会继续向之前的方向移动。如果慢停已经开始，则不会检测到障碍和这种情况不认定为危险信号。当门在慢停时，会以较少的推力推动障碍物。

初步安装及使用操作说明

选项	参数	描述	Scor 默认值	AntE 默认值	MEMO DATA
dEF.	no	不加载数据	no	no	
	SCor	平移门程序设定			
	AntE	P双页门程序设定			
t.AP1	0.0" ÷ 2.0'	门-1开门时间	22.5"	22.5"	
t.AP2	0.0" ÷ 2.0'	门-2开门时间	0.0"	22.5"	
t.APP	0.0" ÷ t.AP1	行人模式开门时间	6.0"	6.0"	
t.Ch1	0.0" ÷ 2.0'	门-1关门时间	23.5"	23.5"	
t.Ch2	0.0" ÷ 2.0'	门-2关门时间	0.0"	23.5"	
t.ChP	0.0" ÷ t.Ch1	行人模式关门时间	7.0"	7.0"	
t.C2P	0.5" ÷ 2.0'	行人模式门-2关门时间	no	2.0"	
	no	- 关闭功能			
r.AP	0.0"÷ 2.0'	开门延时时间	1.0"	1.0"	
r.Ch	0.0" ÷ 2.0'	关门延时时间	3.0"	3.0"	
C2rA	no/Si	延时开门时关闭门-2的时间	no	no	
t.SEr	0.5" ÷ 2.0'	电动门锁运作时间	no	2.0"	
	no	- 没有电动门锁(相当于0)			
SEr.S	Si/no	低噪音锁门模式	Si	Si	
t.ASE	0.0" ÷ 2.0'	预锁时间	0.0"	1.0"	
t.inv	0.5" ÷ 3.0"	后座时间	no	no	
	no	- 不作后座动作(相当于0)			
t.PrE	0.5" ÷ 2.0'	警示灯预闪时间	1.0"	1.0"	
	no	- 关闭预闪(相当于 0)			
t.P.Ch	0.5" ÷ 2.0'	关门闪灯预闪时间	no	no	
	no	- 关门时闪灯预闪时间等于t.PrE设定的时间			
Pot1	30 ÷ 100%	电机-1力度	60	60	
Pot2	30 ÷ 100%	电机-2力度	-	60	
SPUn	no/Si	全功率启动	no	Si	
t.P.So	0.5" ÷ 3.0"	慢启动时间	1.5"	no	
	no	- 关闭慢启动			
t.raL	0.5"÷22.5"	慢停时间	2.0"	2.0"	
	no	- 关闭慢停			
t.CVE	0.0" ÷ 3.0"	慢停后快速关门时间	0.0"	1.0"	
St.AP		开门工程中指令接收	PAUS	PAUS	
	no	- 不接收指令			
	ChiU	- 接收为关门指令			
	PAUS	- 接收为停止或暂停指令			
St.Ch		关门过程中接收指令	StoP	StoP	
	Stop	- 接收为停止关门指令			
	APEr	- 接收为开门指令			
tE.M	Si/no	关闭电机测试	Si	Si	
St.PA		暂停时指令接收	ChiU	ChiU	
	no	- 不接收指令			
	ChiU	- 接收为关门指令			
SPAP		行人模式开门过程中接受指令	PAUS	PAUS	
	no	- 不接收指令			
	ChiU	- 接收为关门指令			
	PAUS	- 接收为暂停指令			
Ch.AU		自动关门功能	no	no	
	no	- 关闭自动关门功能（相当于0）			
	0.5"÷ 20.0'	- 达到预设时间后自动执行关门			
Ch.tr		行人通过后关门	no	no	
	no	- 关闭通过后关门功能			
	0.5"÷ 20.0'	- 门按照设定时间关闭（5-20秒）			
PA.tr	no/Si	行人通过后的暂停时间	no	no	

初步安装及使用操作说明

选项	参数	描述	Scor 默认值	AntE 默认值	MEMO DATA
LP.PA	no/Si	闪灯在暂停时闪烁	no	no	
St.rt		开始指令输入功能	StAn	StAn	
	no	- 关闭从接线端子输入开始指令			
	StAn	- 标准指令输入			
	AP.CH	- 开门关门指令分开输入			
	PrES	- 人工操作			
	oroL	- 计时操作			
StoP		停止指令输入	no	no	
	no	- 不接收停止指令			
	invE	- 接收停止指令，门停止；接收开始指令，门移动			
		反向移动			
	ProS	- 初次接受指令为停止指令，门停止；再次接收指令为开始指令，			
		门移动			
Fot 1		红外感应-1信号输入	APCH	no	
	APCh	- 开启连接好的红外感应			
	no	- 关闭红外感应			
Fot 2		红外感应-2信号输入	CFCh	CFCh	
	CFCh	- 红外感应只在关门时和门静止时开启			
	no	- 关闭红外感应			
	Ch	- 红外感应只在关门时开启			
tESt		安全设备功能测试	no	no	
	no	- 开启功能			
	Foto	- 只对红外设备测试			
	CoSt	- 只对防撞胶测试			
	Ft.Co	- 对红外设备和防撞胶进行测试			
ShAd		红外感应-2的阴影区间	no	no	
	no	- 关闭功能			
	F.ShA	- 红外感应-2失效的终点时间			
	i.ShA	- 红外感应-2失效的开始时间			
CoS1	no/Si	防撞胶-1信号输入(固定端)	no	no	
CoS2	no/Si	防撞胶-2信号输入(移动端)	no	no	
FC.En		限位开关/传感器信号输入	no	no	
	no	- 不输入信号(控制板忽略信号)			
	EnCo	- 开启传感器信号输入			
	FC	- 开启限位开关信号输入			
riLA	Si/no	强制停止时释放电机压力	Si	Si	
t.inA	0 ÷ 8	最大的门静止时间	0	0	
ASM	0.5" ÷ 3.0"	防越行功能	0.5"	0.5"	
	no	- 关闭功能			
SEnS	0 ÷ 10	遇阻灵敏度调节	5	5	
Cont		查看计数器参数	tot	tot	
	tot.	- 已完成的循环总数(以个位或千位为单位查看)			
	Man	- 当前接收工作指令的循环数目（这个数目可以下调至百位也可以			
		上调至千位)。			
		当设为0时不接收指令及不显示数值			
APPr		自动学习运行时间	no	no	
	no	- 关闭功能			
	Go	- 开始进入自动学习程序			
FinE		结束设定程序	no	no	
	no	- 不退出设定程序			
	Si	- 保存设定的参数并退出设定程序			

初步安装及使用操作说明

运行错误

本节介绍会出现的运行错误情况，分析错误原因及解决方法。

电源LED指示灯没开启

这意味着控制板没有接通电源。

1. 在修理控制板前，请通过开关断开电源线及移除电源输入端子。
2. 确保控制板前级电源电路没有中断。
3. 检查保险丝有无烧断，如果烧断请更换相同型号保险丝。

过载LED指示灯开启

意味着附件功率输出过载。

1. 将1-20接线端子移除，过载指示灯会熄灭。
2. 逐一排除过载部分。
3. 接上其余的接线端子确保过载LED指示灯没再开启。

Error 1（运行错误-1）

当退出程序时，出现以下提示：

意味着更改的数据没有保存。

这种运行错误无法修复，请将控制板送回厂家维修。

Error 2（运行错误-2）

当已经发送开始指令时，门没有开启以及出现以下提示时：

意味着可控硅元件测试失败。

在确保电机连接正确后，请将控制板送回厂家维修。

如果没有安装第二台电机，请将t.AP2选项设为0。

Error 3（运行错误-3）

当已经发送开始指令时，门没有开启以及出现以下提示时：

意味着红外测试功能失败。

1. 请确保发送开始指令时，没有障碍物中断红外线。
2. 确保红外设备相关的功能设定，参数设置正确。
3. 如果安装了第二对红外设备，请确保Fot2选项选择CF.CH
4. 确保红外设备已接通电源及能正常工作；当干扰红外线时，会有继电器吸合的声音。

Error 4（运行错误-4）

门开门时移动了很短距离就停止并出现以下提示时：

意味着关门限位开关还在关闭。请确保限位开关正确连接，以及开门时将限位开关全部打开。

Error 5（运行错误-5）

当发送开始指令后，门没开启及出现以下提示时：

意味着防撞胶测试失败。确保控制板连接的防撞胶正确连接及能正常工作。确保防撞胶功能设置的参数设定正确。

Error 7（运行错误-7）

这表示传感器运行错误：

有以下三种情况：

1. 连接好传感器，即使传感器没有开启，在门移动了一小段距离后出现：说明门的传感器装反，请将17和18端子，或19和20端子对调。
2. 在传感器可用的情况下，接收到开始信号时出现：说明传感器没有初始化。确保传感器能正常工作后，运行自动学习程序。
3. 当传感器可及进行了初始化设定，移动了几秒后出现：说明传感器不能正常工作。可能是传感器损坏或者连接断开。

长时间预闪

当发射出开始指令和警示灯马上开启，但门很迟才开启，说明设定的循环数值过低控制板按照设定进行警示。