EN

POWER VAR GT

02/01/23

1. APPLICATIONS

Control panel for 1 motor at 230 Vac three-phase, power stage with inverter that enables speed ramps on closing and opening. Targeted to industrial applications.

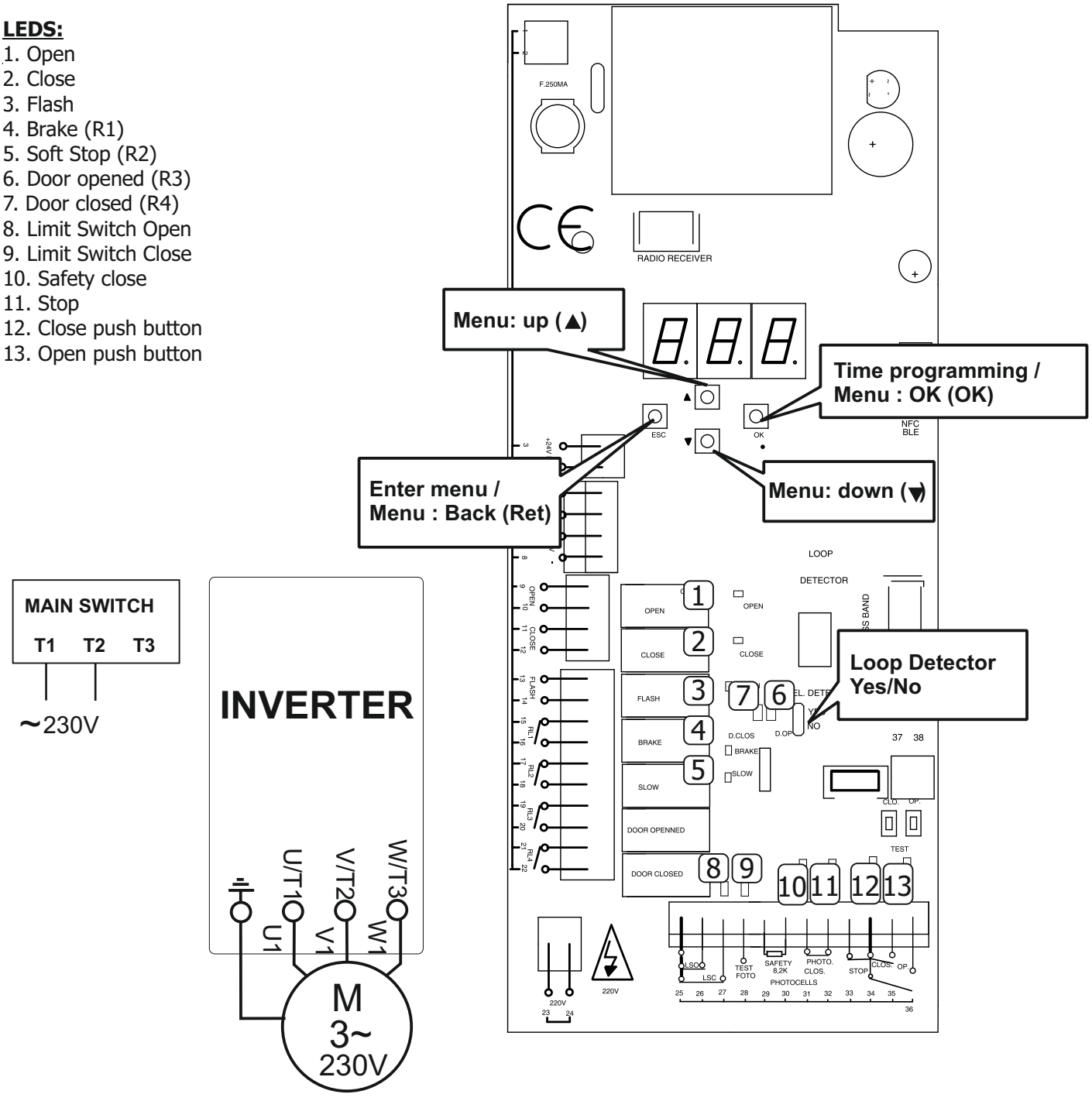
Supports:
- SRT BAND: WIRELESSBAND pluggable card receiver for resistive, mechanical, optical and pressure switch safety edges.
- DMT: Magnetic loop card for safety int. & opening performances.
- SRT: pluggable radio card receiver compatible with 433 and 868 Mhz transmitters.

2. SETTING UP INSTRUCTIONS

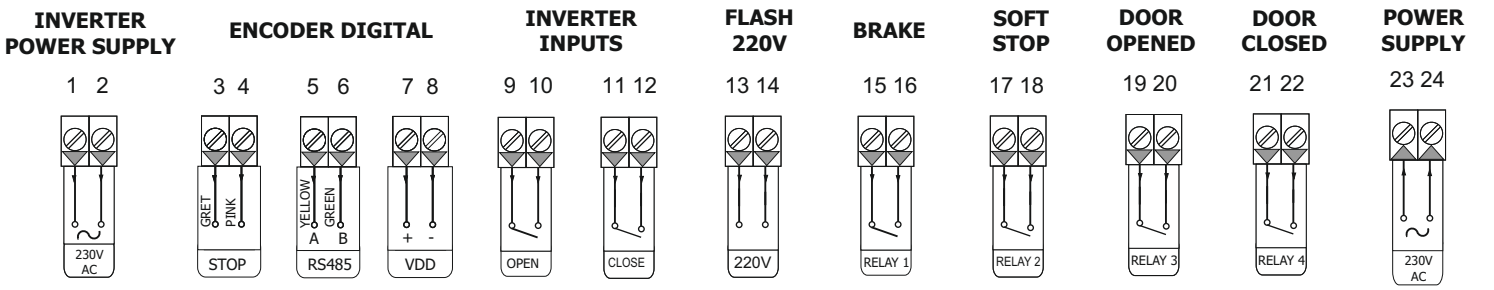
Door position from limit switch activation, end of working time on encoder.
Setting up to be handled manually from control board buttons or via Green Touch System.
Green Touch System (GT) available for android devices at Play Store and powered via NFC.
Garage light contact is activated when opening and deactivated after 2 seconds.

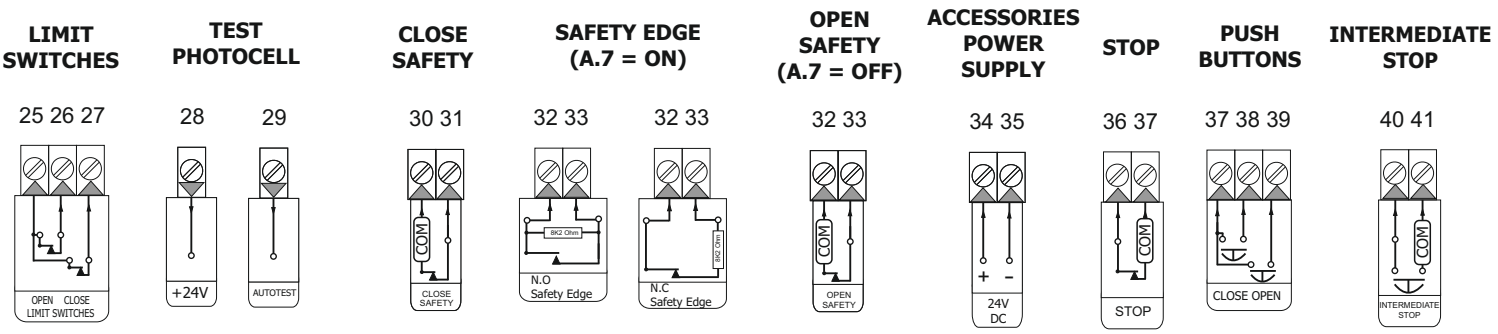
3. CONNECTIONS

LEDS:
1. Open
2. Close
3. Flash
4. Brake (R1)
5. Soft Stop (R2)
6. Door opened (R3)
7. Door closed (R4)
8. Limit Switch Open
9. Limit Switch Close
10. Safety close
11. Stop
12. Close push button
13. Open push button



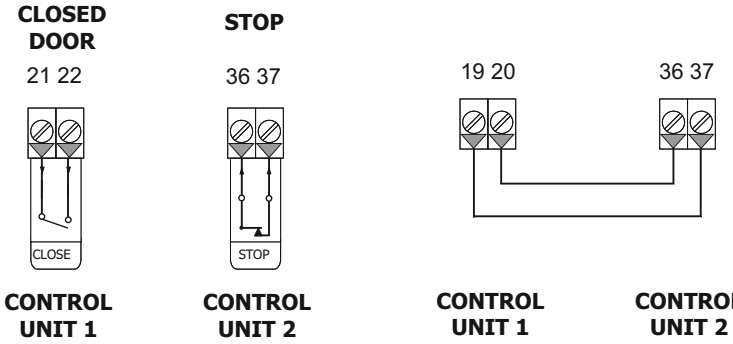
3.1 TERMINAL CONNECTIONS



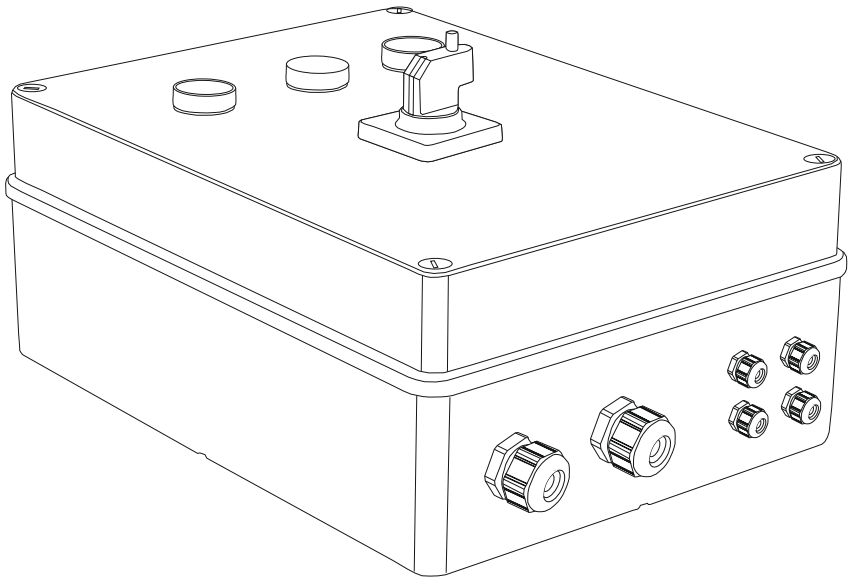


4. INTERLOCK FUNCTION

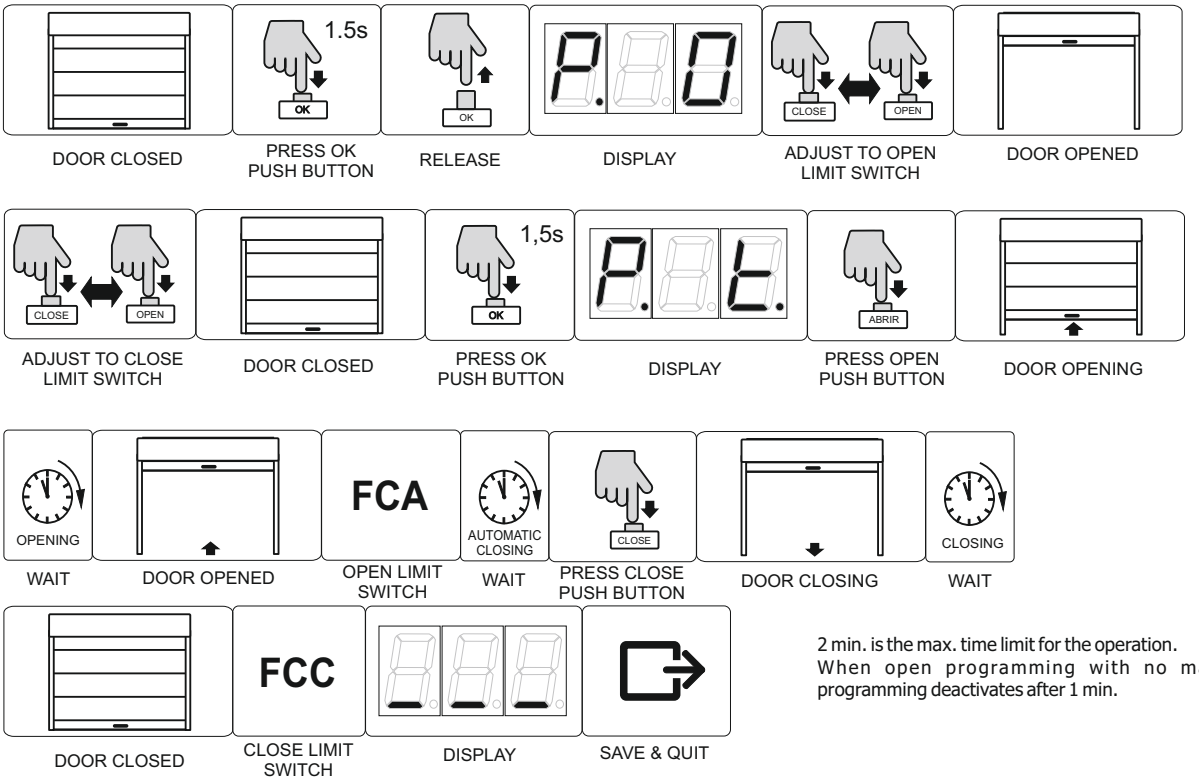
- Prevent two doors from being opened at the same time.



5. HOUSING



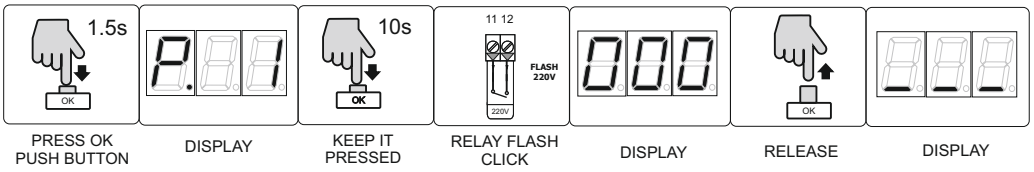
6. DIGITAL TIME PROGRAMMING



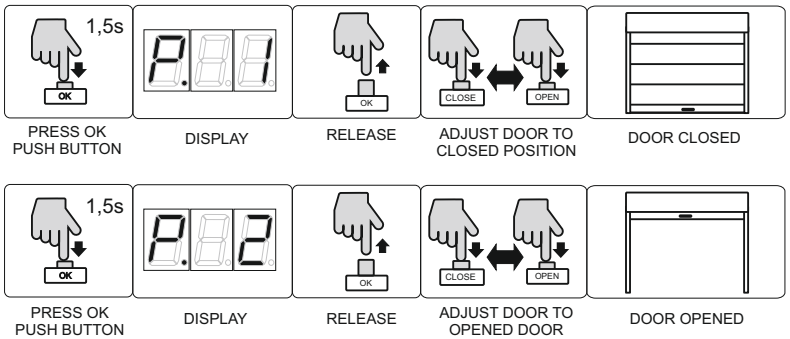
2 min. is the max. time limit for the operation.
When open programming with no manoeuvre, programming deactivates after 1 min.

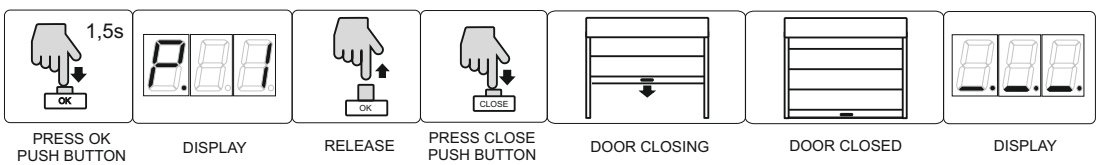
7. ENCODER TIME PROGRAMMING (select encoder type - parameter e.1)

- Reset (always before programming process):



- Programming process:



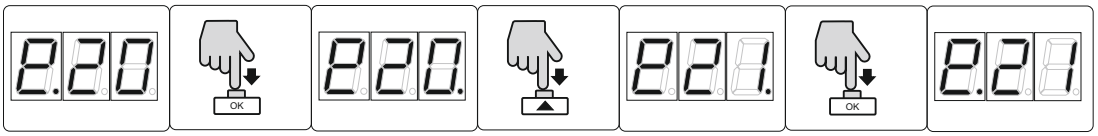


* Open and Close push buttons will be used to adjust the door position. If there aren't any push button connected, connect N.O. push buttons to the terminals 34-36 (Open) and 34-35 (Close).

*** Important:** Once encoder position is memorized, carry out 3 complete manoeuvres to compensate possible door imbalance.

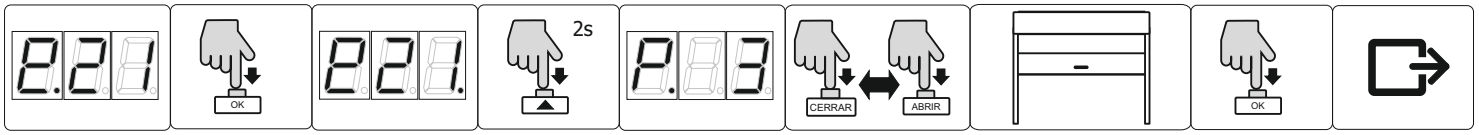
7.1 INTERMEDIATE STOP TIME PROGRAMMING (WITH ENCODER)

Set parameter e.2 = 1:



DISPLAY | PRESS OK PUSH BUTTON | DISPLAY | PRESS MENU UP PUSH BUTTON | DISPLAY | PRESS OK PUSH BUTTON | SAVED PARAMETER

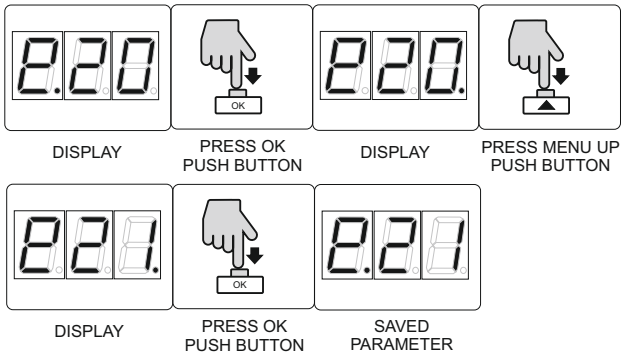
Back to parameter e.2 to begin the intermediate stop time programming:



DISPLAY | PRESS OK PUSH BUTTON | DISPLAY | PRESS MENU UP PUSH BUTTON | DISPLAY | ADJUST TO INTERMEDIATE STOP POSITION | DOOR OPEN UNTIL INTERMEDIATE STOP | PRESS OK PUSH BUTTON | SAVE & EXIT

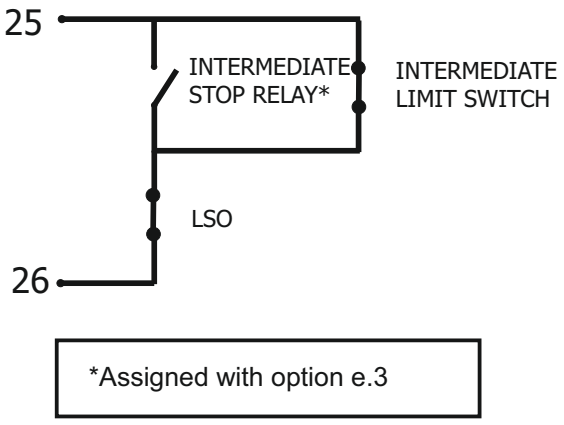
7.2 INTERMEDIATE STOP CONNECTIONS (WITHOUT ENCODER)

Set parameter e.2 = 1:



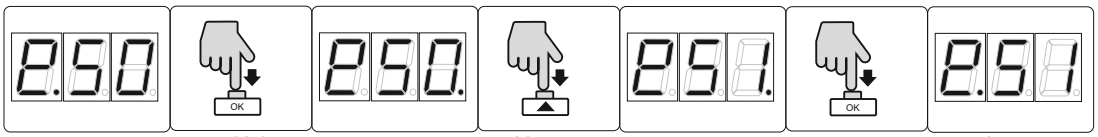
DISPLAY | PRESS OK PUSH BUTTON | DISPLAY | PRESS MENU UP PUSH BUTTON

DISPLAY | PRESS OK PUSH BUTTON | SAVED PARAMETER



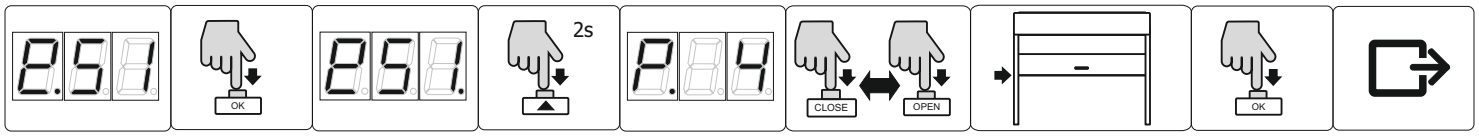
7.3 DISABLE PHOTOCELL AT OPENING PROGRAMMING PROCESS (WITH ENCODER)

Set parameter e.5 = 1:



DISPLAY | PRESS OK PUSH BUTTON | DISPLAY | PRESS MENU UP PUSH BUTTON | DISPLAY | PRESS OK PUSH BUTTON | SAVED PARAMETER

Back to parameter e.5 to begin the disable photocell start position programming:



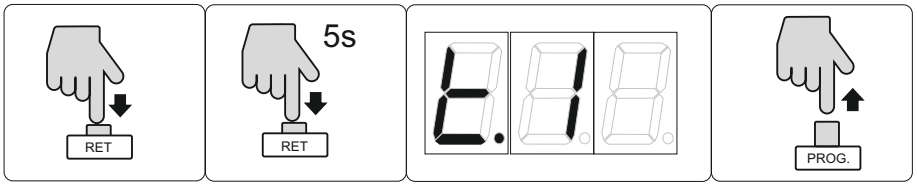
DISPLAY | PRESS OK PUSH BUTTON | DISPLAY | PRESS MENU UP PUSH BUTTON | DISPLAY | ADJUST TO DISABLE PHOTOCELL START POSITION | DISABLE PHOTOCELL START DOOR POSITION | PRESS OK PUSH BUTTON | SAVE & EXIT

8. INVERTER MAIN PARAMETERS

MENU*	FUNCTION	PARAMETERS
(ATV12) CONF -> FULL -> drC- -> nsp **(ATV320)** DRI -> CONF -> FULL -> SIM- -> nsp	**RPM motor**: Specified by the manufacturer (see in the metal plate of the motor).	0 - 24000 rpm (by default 2820 rpm)
(ATV12) CONF -> FULL -> FUN -> PSS -> SP2 **(ATV320)** DRI - > CONF -> FULL -> FUN -> PSS -> SP2	**Opening speed** : Maximum opening speed.	0 - 400 Hz (by default 60 Hz)
(ATV12) CONF -> FULL -> FUN -> PSS -> SP3 **(ATV320)** DRI - > CONF -> FULL -> FUN -> PSS -> SP3	**Closing speed** : Maximum closing speed.	0 - 400 Hz (by default 30 Hz) * Press central push button of inverter to entry to the next menu and ESC to return.

9. MENU

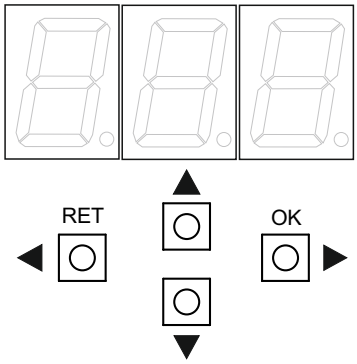
9.1 ENTER TO MENU

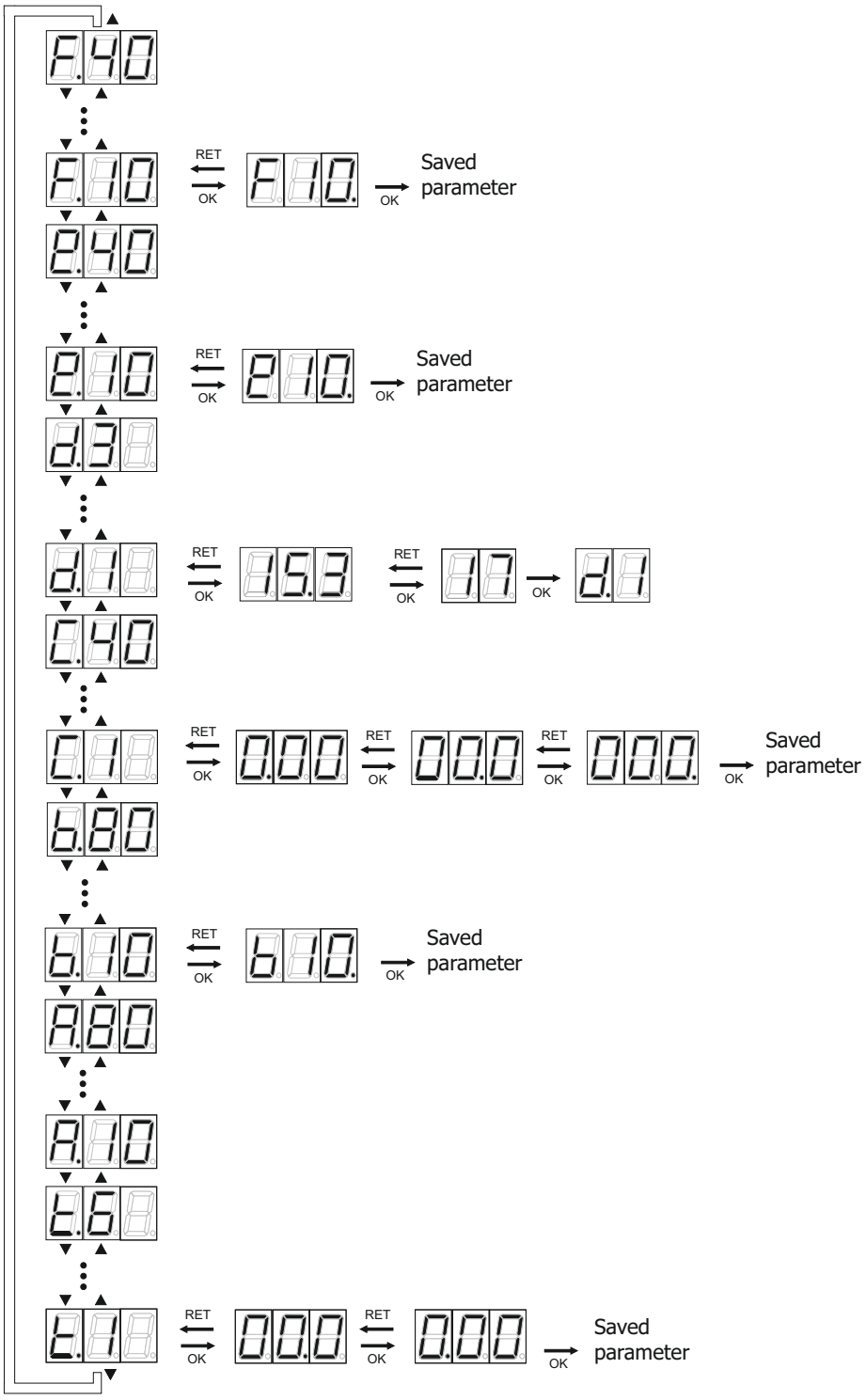


PRESS RET PUSH BUTTON | KEEP IT PRESSED | DISPLAY | RELEASE

9.2 ORGANIZATION TREE

Navigation:

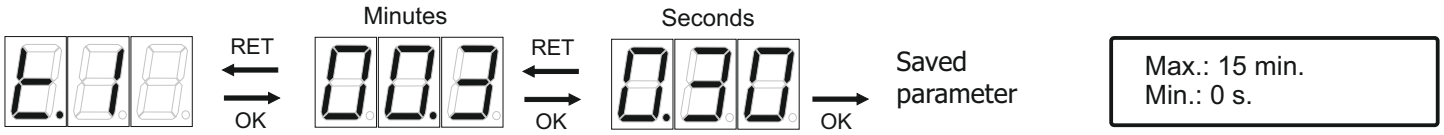




10. MENU PARAMETERS SET UP

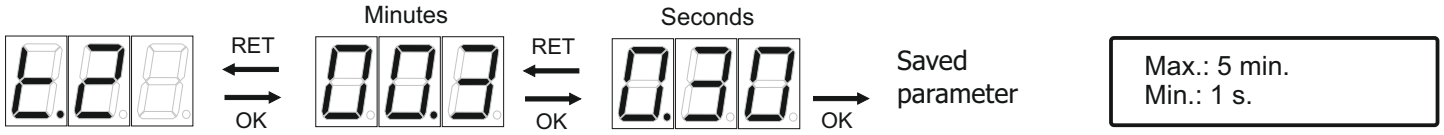
10.1 TIMES (t._)

Automatic closing time:



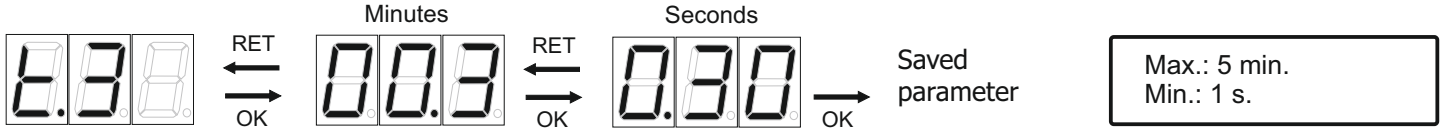
Max.: 15 min.
Min.: 0 s.

Opening time:



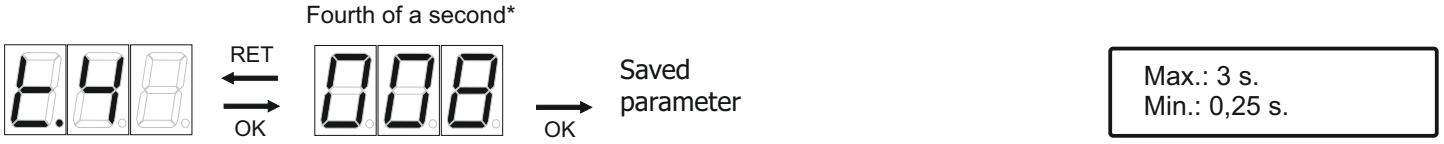
Max.: 5 min.
Min.: 1 s.

Closing time:



Max.: 5 min.
Min.: 1 s.

Invert time:

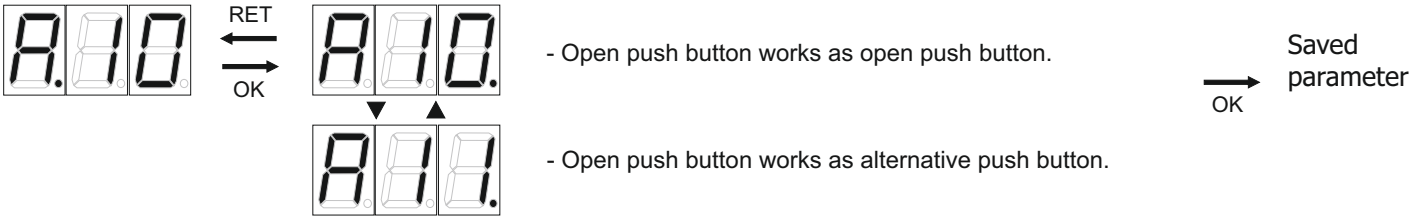


Max.: 3 s.
Min.: 0,25 s.

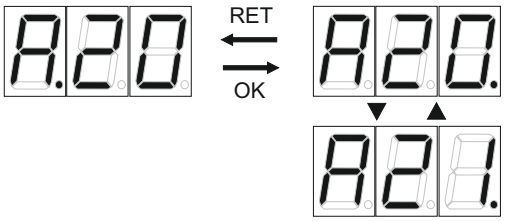
*Every unit represents 0.25 seconds.

10.2 FUNCTIONS (A._)

Open push button (34-36):



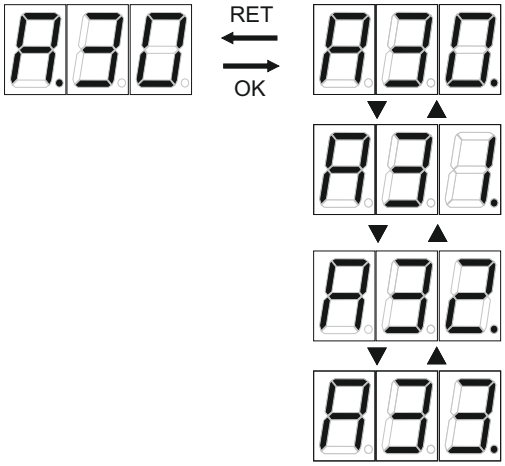
Disable stop when opening:



- No.
- Yes.

OK → Saved parameter

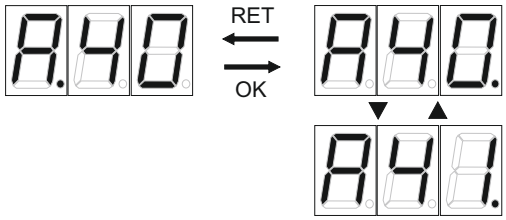
Dead man:



- Never.
- When closing.
- When opening.
- Always.

OK → Saved parameter

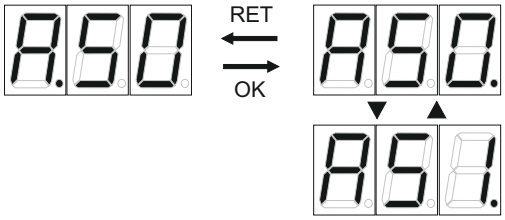
Photocell for opening (29-30):



- Stop the manoeuvre.
- Stop and go the manoeuvre.

OK → Saved parameter

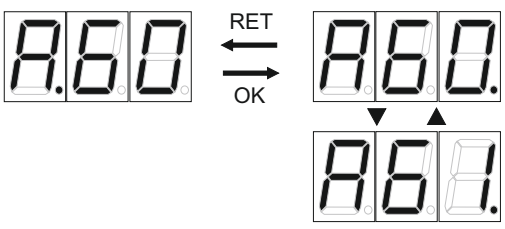
Resistive safety edge when opening:



- Stop and invert when closing.
- Stop and invert 1 second when closing.

OK → Saved parameter

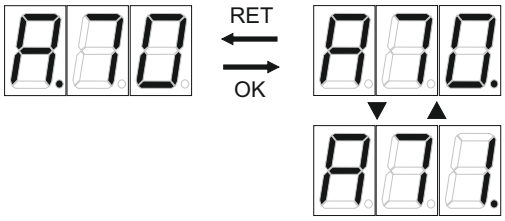
Resistive safety edge when opening:



- Nothing.
- Stop and invert 1 second when opening.

OK → Saved parameter

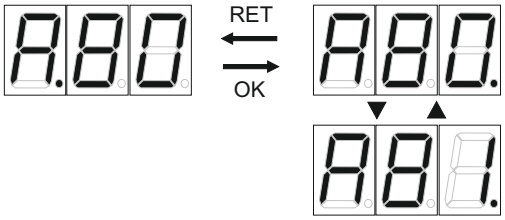
Photocell 1 / Safety Edge input (29-30):



- Works as a photocell when opening.
- Works as 8K2 safety edge.

OK → Saved parameter

Door contacts indicator:

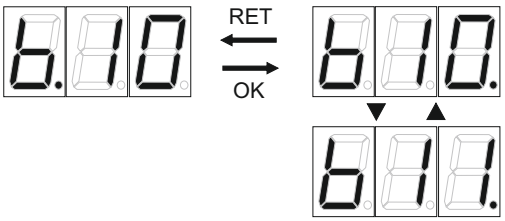


- Normally open (N.O.).
- Normally closed (N.C).

OK → Saved parameter

10.3 FUNCTIONS (B._)

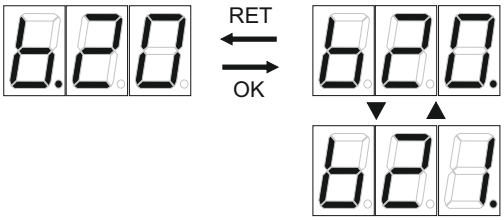
Photocell when door open (31-32):



- Restore automatic closing time deactivated.
- Restore automatic closing time.

OK → Saved parameter

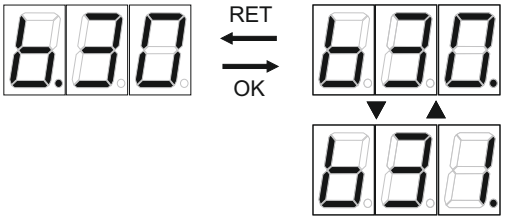
Open push button when door open (34-36):



- Restore automatic closing time deactivated.
- Restore automatic closing time.

OK → Saved parameter

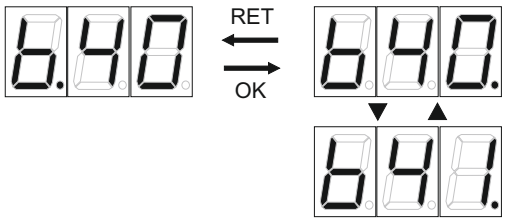
Activation resistive edge (8K2) / mechanical (NC) (29-30):



- Restore automatic closing time deactivated.
- Restore automatic closing time.

OK → Saved parameter

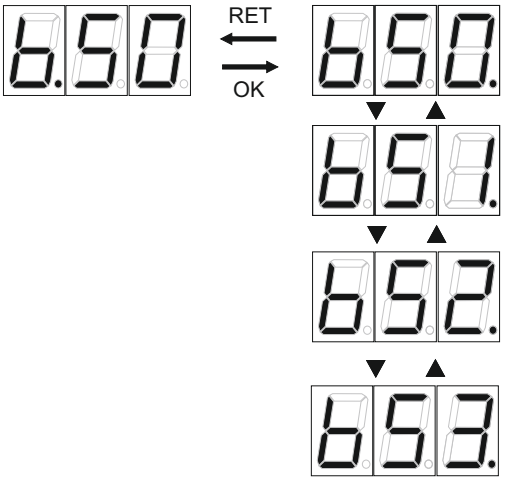
Activation safety edge input (29-30):



- Restore automatic closing time deactivated.
- Restore automatic closing time.

OK → Saved parameter

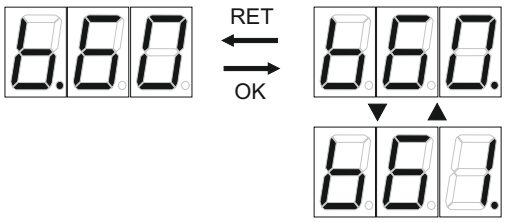
Closing for photocell (31-32):



- No.
- Immediate.
- 3 seconds delay.
- Reservaded.

OK → Saved parameter

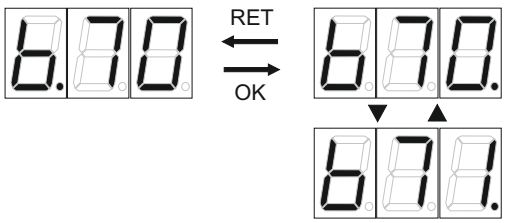
Photocell inhibition when closing:



- No.
- Yes.

OK → Saved parameter

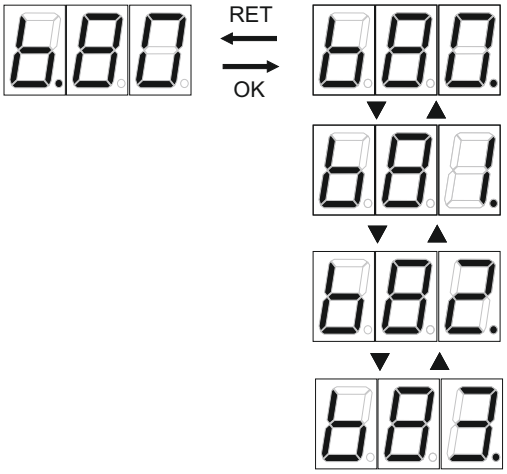
Photocell inhibition when opening:



- No.
- Yes.

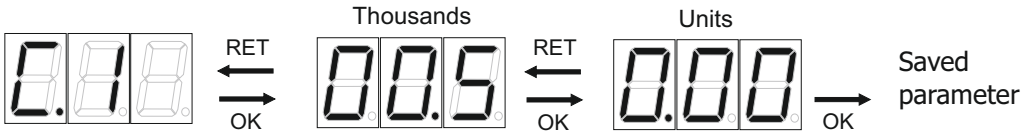
OK → Saved parameter

Photocell test:



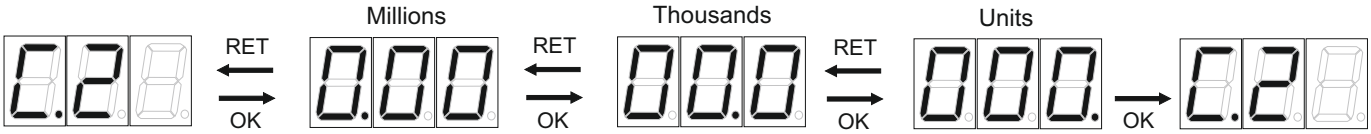
10.4 MAINTENANCE (C._)

Cycle limit for maintenance:



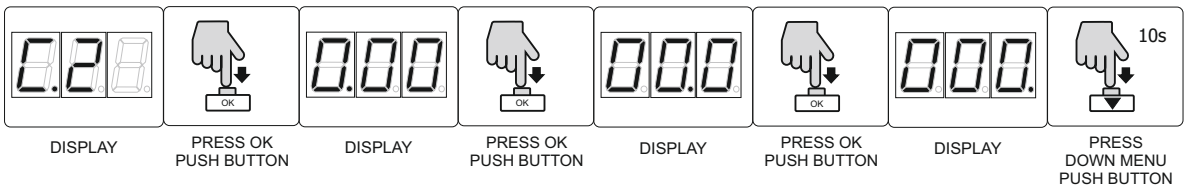
Maximum: 99900
Minimum: 100

Cycle counter trip:

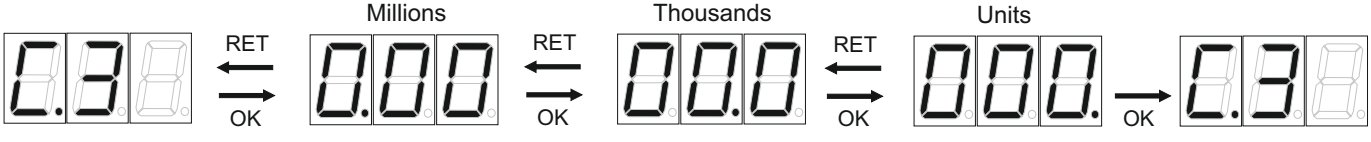


Maximum: 16777216

Reset counter:

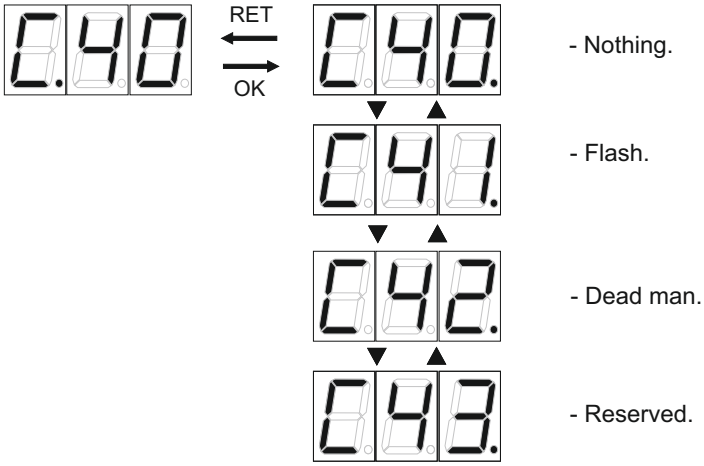


Total cycle counter:



Maximum: 16777216

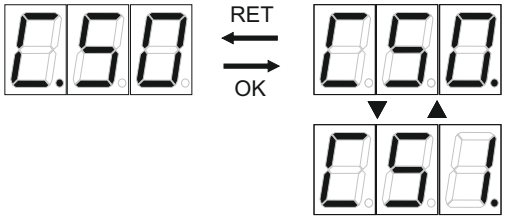
Maintenance warning:



- Nothing.
- Flash.
- Dead man.
- Reserved.

OK → Parámetro guardado

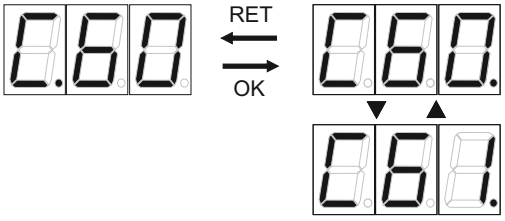
Automatic opening (t1 > 0s) (C.5):



- No.
- Yes.

OK → Saved parameter

Automatic opening every hour (t1 > 0s) (C.6):

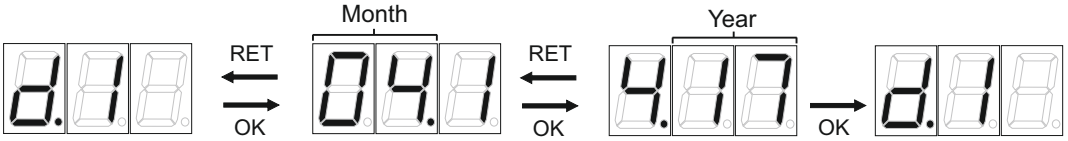


- No.
- Yes.

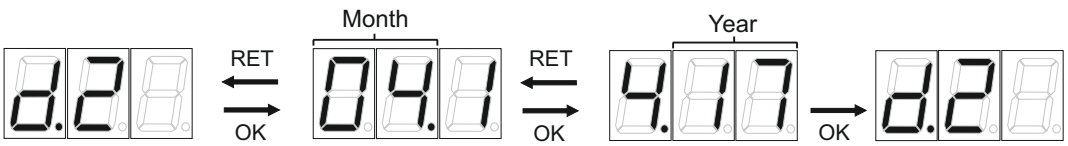
OK → Saved parameter

10.5 CONTROL UNIT INFORMATION (d._)

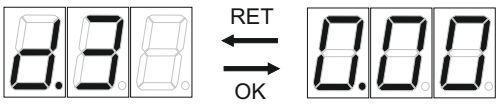
Production date:



Last maintenance date:

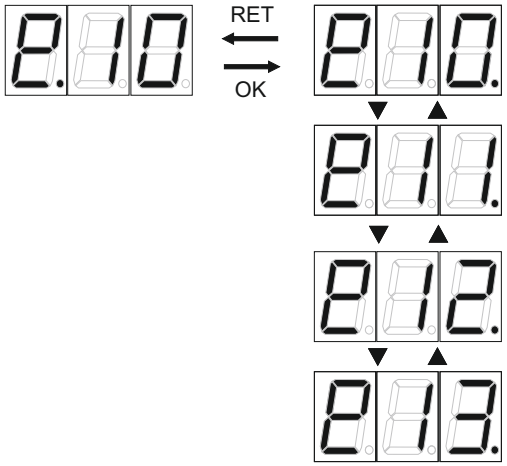


Software version:



10.6 ENCODER (e._)

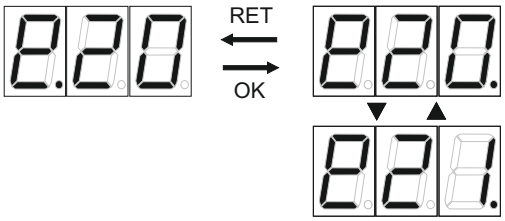
Absolute encoder type:



- No encoder.
- Type A (Kostal).
- Type B (GFA).
- Type C (Sirem).

OK → Saved parameter

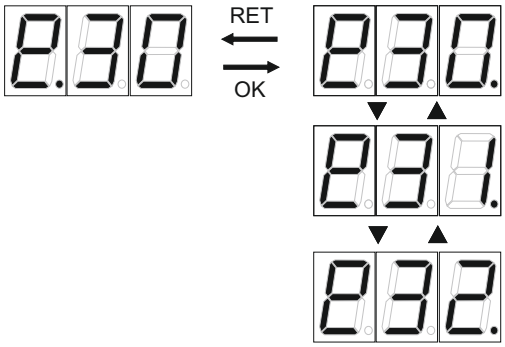
Intermediate stop setup:



- No.
- Yes, memorize.

OK → Saved parameter

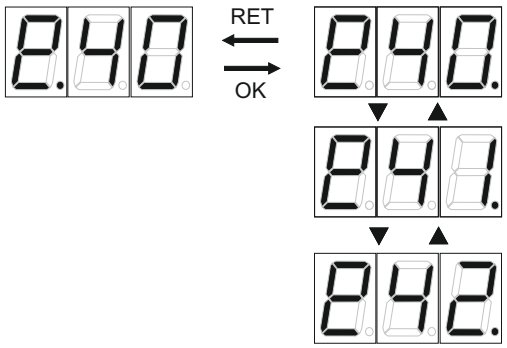
Intermediate stop option:



- No.
- Relay 3.
- Relay 4.

OK → Saved parameter

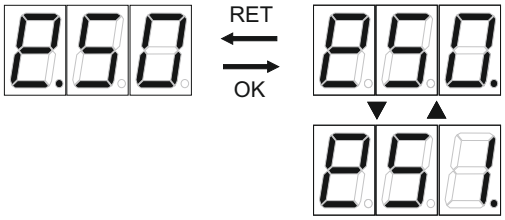
Soft stop when opening / closing:



- Short.
- Medium.
- Long.

OK → Saved parameter

Disable photocell at opening:



- No.
- Yes.

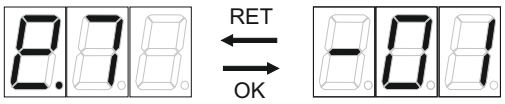
→ OK Saved parameter

Limit Switch Close (LSC) fine adjustment:

- Fine adjustment from -7 to 7. **Negative** value to adjust before and **positive** value to adjust after the programmed LSC.

→ OK Saved parameter

Limit Switch Open (LSO) fine adjustment:

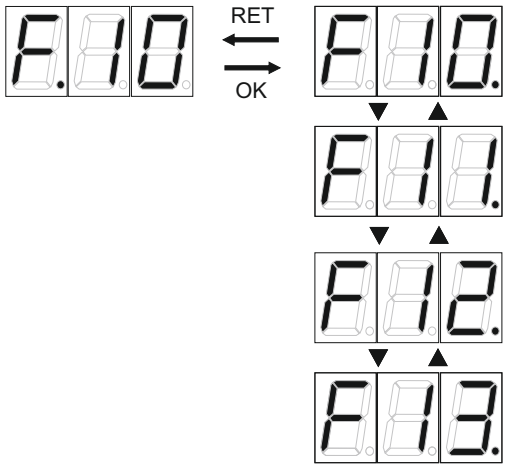


- Fine adjustment from -7 to 7. **Negative** value to adjust before and **positive** value to adjust after the programmed LSO.

→ OK Saved parameter

10.7 FLASH (F._)

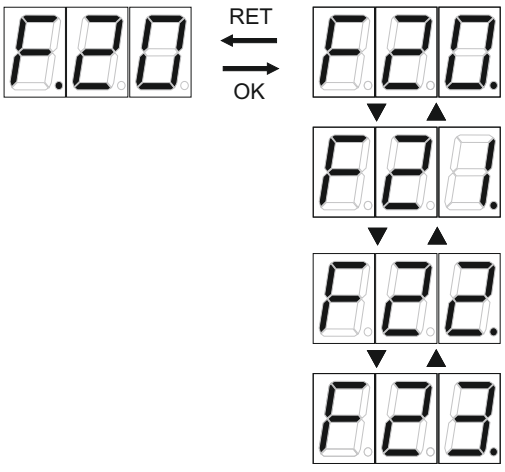
Flash when door opening:



- No.
- Yes.
- Turn signal.
- Reserved.

→ OK Saved parameter

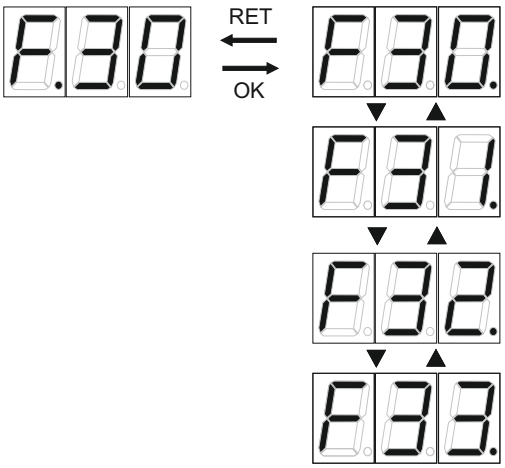
Flash door opened:



- No.
- Yes.
- Turn signal.
- Reserved.

→ OK Saved parameter

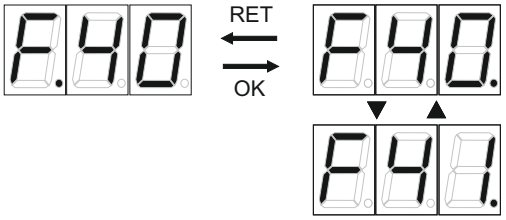
Flash door closing:



- No.
- Yes.
- Turn signal.
- Reserved.

OK → Saved parameter

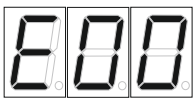
Pre-flashing option:



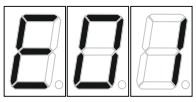
- No.
- Yes.

OK → Saved parameter

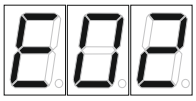
10.8 ERRORS (E._)



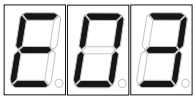
- Limit switches common error.



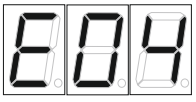
- Photocell open / edge error (29-30).



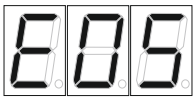
- Photocell close error (31-32).



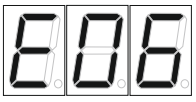
- Loop detector error.



- Stop (33-34) error.

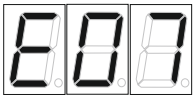


- Cover stop push button error.

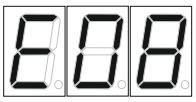


- Safety edge activated (via radio) error.

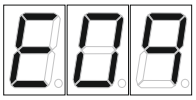
POWER VAR GT



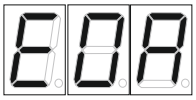
- Open push button error (34-36).



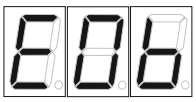
- Close push button (34-35).



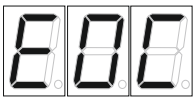
- Encoder error (no answer).



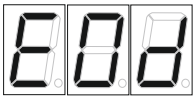
- Phase shift error (encoder).



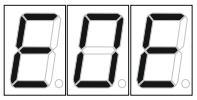
- Limit position NOT saved.
*for digital time programming please see point 5



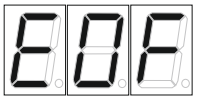
- Communication error (encoder).



- Door maintenance notice. Reset with parameter C2.



- Photocell / edge test error.



- Encoder error (magnet not detected).

TECHNICAL SPECIFICATIONS	
Power Supply	230V AC +/- 10%
Drive	230V
Max Drive Power	0.75 - 1.5 KW (1 - 2 HP)
Power Supply for accessories	12V DC 250mA / 24V DC 250mA
Garage door output type	Power free contact
Flashing light output	230V 10A
Working Time	From 8 sec to 80 sec
Automatic closing time	From 5 sec to 120 sec
Radio Card	Optional
Loop Detector Card	Optional
Wirelessband Receiver Card	Optional
NFC card	Optional
Working Temperature	-20 to 85ºC

CE DECLARATION OF CONFORMITY
For more information visit the website www.aerf.eu

WARNING!!

- Equipment installation and start-up, can only be executed by qualified personal.

AERF® developers & manufacturers

CE