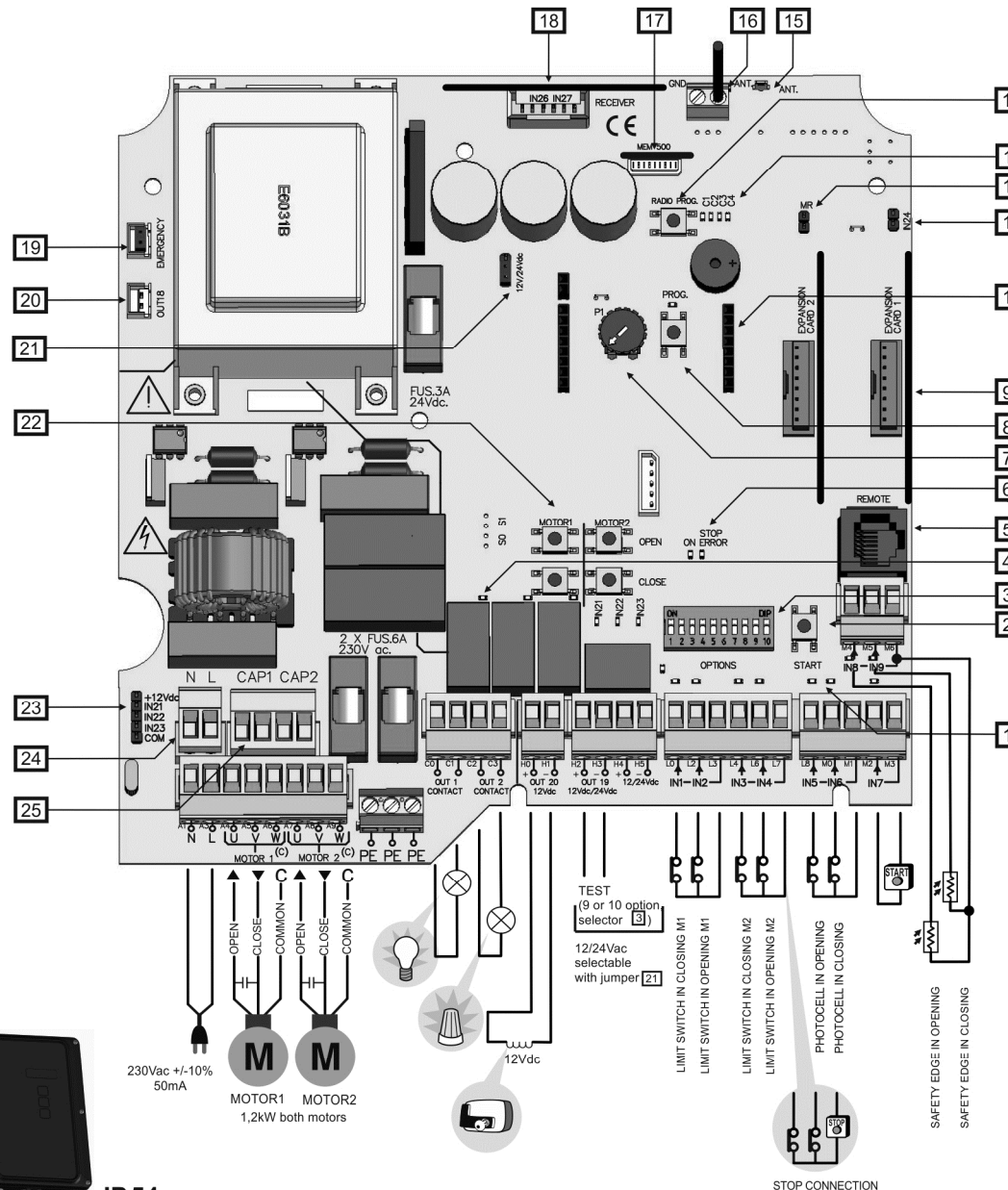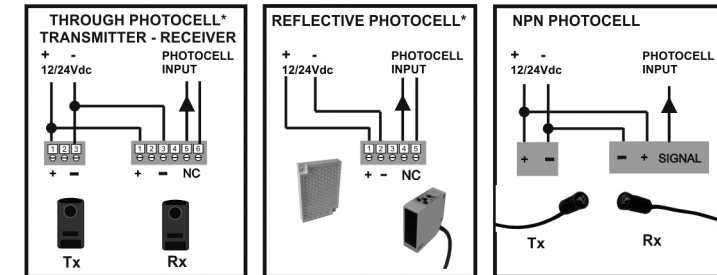# M22
User´s manual

Two motors monophase control panel with soft stop for residential and community use.

Legend:

1. INPUT LEDS
   On = Not connected or activated
   Off = Normal State
   Flashing = See error table
2. START BUTTON
3. OPTIONS SELECTOR (see table)
4. OUTPUT LEDS
   On = Operating
   Off = Not operating
5. PROGRAMMER TOOL CONNECTOR (VERSUS-PROG, V-EXPAND)
6. ON & STOP/ERROR LEDS
   On = Power on & Stop/Error detection
   Off = Power off & Normal state
7. ADJUSTABLE REGULATOR (Motor Power)
8. PROGRAMMING BUTTON DOOR MANEUVER (Maximum time: 6min)
9. EXPANSION CARD CONNECTOR (TL-CARD-V, RSEC3)
10. VERSUS LCD CONNECTOR (V-DPLAY, V-POT, V-LCD)
11. TAMPER CONNECTOR
12. MR SELECTOR (Reset user receiver)
13. RADIO CHANNELS LEDS
    On = Programming/Activation channel
    Off = Normal state
14. RADIO PROG BUTTON
    868,35MHz Receiver, 27 Users
15. ANTENNA CONNECTOR Receiver 433MHz
16. ANTENNA CONNECTOR INCORPORATED RECEIVER
17. 500 CODES MEMORY CARD CONNECTOR (MEM500)
18. PLUIG-IN RECEIVER CONNECTOR
19. EMERGENCY STOP CONNECTOR (jumper if not used)
20. FRONT BOX COURTESY LIGHT CONNECTOR
21. 12/24Vdc SELECTOR (12/24Vdc output selector; without jumper 0V)
22. OPEN/CLOSE BUTTONS FOR EACH MOTOR
23. FRONT BOX BUTTONS CONNECTOR
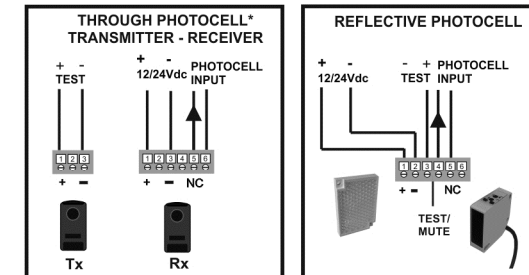24. 230Vac OUTPUT
25. MOTOR CAPACITOR CONNECTOR

Board labels: IN26 IN27, RECEIVER, MEM500, RADIO PROG., GND, ANT., MR, N24, P1, PROG., EXPANSION CARD 2, EXPANSION CARD 1, REMOTE, MOTOR1, MOTOR2, OPEN, CLOSE, STOP ON ERROR, ON DIP, OPTIONS, START, IN8 IN9, M4 M5 M6, FUS.3A 24Vdc., 2 X FUS.6A 230V ac., N L CAP1 CAP2, +12Vdc IN21 IN22 IN23 COM, E6031B

Terminals: N L U V W (C) MOTOR 1, U V W (C) MOTOR 2, PE PE PE, CO C1 OUT 1 CONTACT, C2 C3 OUT 2 CONTACT, H0 H1 OUT 20 12Vdc, H2 H3 OUT 19 12Vdc/24Vdc, H4 H5 +12/24Vdc, L0 L2 L3 IN1–IN2, L4 L6 L7 IN3–IN4, L8 M0 IN5–IN6, M1 M2 M3 IN7

230Vac +/-10% 50mA
MOTOR1 MOTOR2
1,2kW both motors
12Vdc
TEST (9 or 10 option selector ③)
12/24Vac selectable with jumper 21

LIMIT SWITCH IN CLOSING M1
LIMIT SWITCH IN OPENING M1
LIMIT SWITCH IN CLOSING M2
LIMIT SWITCH IN OPENING M2
PHOTOCELL IN OPENING
PHOTOCELL IN CLOSING
SAFETY EDGE IN OPENING
SAFETY EDGE IN CLOSING
STOP CONNECTION

+55ºC -20ºC
92mm 285mm 225mm
IP 54

PHOTOCELL CONNECTION EXAMPLE

THROUGH PHOTOCELL*
TRANSMITTER - RECEIVER
+ − 12/24Vdc PHOTOCELL INPUT
+ − + − NC
Tx Rx

REFLECTIVE PHOTOCELL*
+ − 12/24Vdc PHOTOCELL INPUT
+ − NC

NPN PHOTOCELL
+ − 12/24Vdc PHOTOCELL INPUT
+ − + SIGNAL
Tx Rx

* If autotest not connected, perform a maintenance of the photocells every 6 months.

CONNECTION WITH AUTOTEST EXAMPLE

THROUGH PHOTOCELL*
TRANSMITTER - RECEIVER
+ − TEST + − 12/24Vdc PHOTOCELL INPUT
+ − + − NC
Tx Rx

REFLECTIVE PHOTOCELL
+ − 12/24Vdc − + TEST PHOTOCELL INPUT
+ − NC
TEST/MUTE

OPERATION

SAFETY IN OPENING: Stops and reverse the movement 1s.

SAFETY IN CLOSING: Stops and reverse the movement totally. If AUTOCLOSE on, at the end of autoclose time the door will close. If more than 10 consecutive inversions are done, then no autoclose is performed.
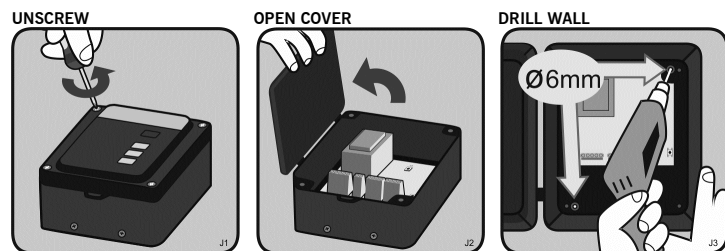
MOTOR POWER: If motor power is regulated, it is necessary to program again the control panel.
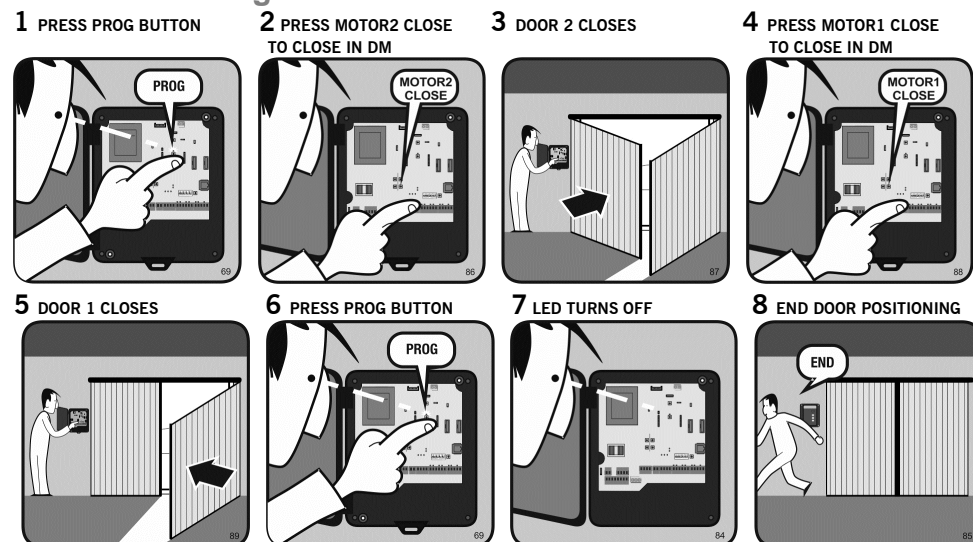
OPTIONS SELECTOR

③		OFF (ON DIP 1–10)	ON (ON DIP 1–10)
1	AUTOCLOSE	Do not close automatically	Close automatically
2	SLOW SPEED	Normal speed in all the manoeuvre	Slow speed available at the end of the manoeuvre
3	PRE-FLASH	Pre-flash disabled	3s pre-flash enabled
4	REVERSE STRIKE	Normal opening	Performs a reverse strike 2s before opening the door
5	CLOSE BY CSEG	The safety contact performs its formal function	The safety contact operates as a close button once the vehicle has passed
6	TWO MOTORS MODE	One motor (M1) operating	Both motors operating (M1 and M2)
7	NO REVERSE AT OPEN	Start button performs an stop at opening	Start button opens until total opening
8	ELECTRO	The electrolock is activated 2s before opening the door + 1s during the opening	The elctrolock is disabled
9	TEST CSEG OPEN	Test safety contact in opening disabled	Test safety contact in opening enabled
10	TEST CSEG CLOSE	Test safety contact in closing disabled	Test safety contact in closing enabled

Starting up

Installation without support

UNSCREW

OPEN COVER

DRILL WALL

Ø6mm

Door Positioning

1 PRESS PROG BUTTON

PROG

2 PRESS MOTOR2 CLOSE
TO CLOSE IN DM

MOTOR2
CLOSE

3 DOOR 2 CLOSES

4 PRESS MOTOR1 CLOSE
TO CLOSE IN DM

MOTOR1
CLOSE

5 DOOR 1 CLOSES

6 PRESS PROG BUTTON

PROG

7 LED TURNS OFF

8 END DOOR POSITIONING

END

Considerations:

In step 2, if MOTOR2 CLOSE is pressed and the door opens, reverse the motor 2 wires, and return to step 1.
In step 4, if MOTOR1 CLOSE is pressed and the door opens, reverse the motor 1 wires, and return to step 1.

Maintenance

Important safety instructions for installation

⚠ **Disconnect the power supply whenever you proceed
to the installation or repair of the control panel.**

· **The panel must be installed while the power is disconnected.**
· Before installing the panel, remove all unnecessary ropes or chains and disable any equipment such as locks that is not necessary for the automatic operation.
· Before installing the panel, check that the door is in good mechanical condition, correctly balanced and that it opens and closes correctly.
· Install the manual unlocking device at a height lower than 1.8m.
· Install any permanent control next to the door away from any moving part and at a minimum height of 1.5m.
· For permanently connected equipment, an easily accessible power disconnection device must be incorporated into the wiring. It is recommended that this be of the emergency switch type.
· If the control panel is supplied without emergency stop button, this will be incorporated in the installation, connecting it to the STOP terminal.
· For correct use of the security edge, this must never be activated when the door is fully closed. It is wise to install the ends of run before activating the edge.
· This equipment can only be handled by a specialist fitter, by maintenance staff or by a suitably trained operator.
·To connect the power supply and motor wiring, 2.5 mm2 section terminals must be used.
· **Use protective goggles when handling the equipment.**
· Fuses must only be handled when the appliance is disconnected from the mains.
· The instructions for using this equipment must remain in the possession of the user.
· If the control panel is password protected, it must be given to the owner.
· European door normative EN 12453 and EN 12445 specify the following minimum protection and door safety levels:
    - for single-family dwellings, prevent the door from making contact with any object or limit the force of contact (e.g. safety band), and in the case of automatic closing, it is necessary to complement this with a presence detector (e.g. photocell).
- for communal and public installations, prevent the door from making contact with any object or limit the force of contact (e.g. safety band), and complement this with a presence detector (e.g. Photocell).

Important safety instructions for use

· Do not allow children to play with the door controls.
· Keep the remote controls out of the reach of children.
· Watch the door movement and keep people away until the door is fully open or closed.
· Precaution when operating the manual unlocking device, as the door may suddenly fall due to the bad condition of the springs or door unbalance. Details on how to use the manual unlocking device must be provided by the manufacturer or the device installer.
· Examine the installation frequently, especially the cables, springs and supports, to detect signs of wear, damage or unbalance. Do not use the door if repair work or adjustments are required, as this may cause damage.

Use of the equipment

Designed for automation of garage doors, in accordance with the general description. Not guaranteed for other uses.
The manufacturer reserves the right to alter equipment specifications without prior notification.

EU declaration of conformity

JCM TECHNOLOGIES, SA hereby declares that the product M22 complies with the requirements of the Machine Directive 2006/42/EC as well as with the Directives 2014/30/EU on electromagnetic compatibility and 2014/35/EU regarding low voltage whenever its usage is foreseen; and with the 2011/65/EU RoHS Directive.

See website: www.jcm-tech.com/declarations

CE ☒

Mantenimiento

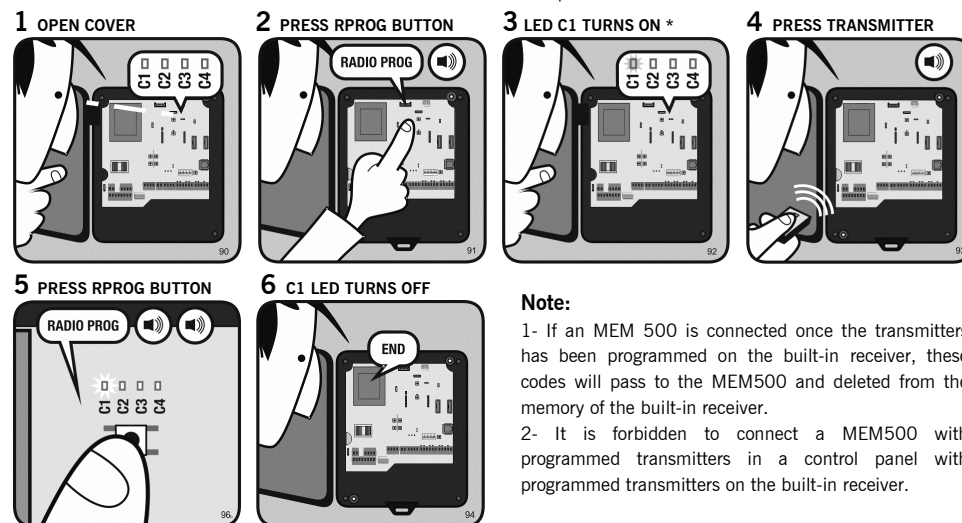| €	Error	ERROR Led	Description	Solution
EP09	PROG TIME MAX	10 slow flashes 9 quick flashes	Programming time maximum	Program a maneuver below the maximum allowed time
EP12	S.EDGE.CL ERROR	1 slow flashes 2 quick flashes	Closing safety edge error	Verify the security edge band connections when closing
EP13	S.EDGE.OP ERROR	1 slow flashes 3 quick flashes	Opening safety edge error	Verify the security edge band connections when opening
EP19	TEST.CL ERROR	1 slow flashes 9 quick flashes	Closing auto test error	Verify that the security device connected to the security connection when closing is in good conditions and correctly installed
EP20	TEST.OP ERROR	2 slow flashes 10 quick flashes	Opening auto test error	Verify that the security device connected to the security connection when opening is in good conditions and correctly installed
EP21	RSENS NC WHEN PROG	2 slow flashes 1 quick flashes	Control panel programmed without RSENS connected	Connect the RSEC card and program the control panel again
EP22	RSENS NOT FOUND	2 slow flashes 2 quick flashes	Control panel programmed with RSENS connected and now it is not connected	Program the control panel again without RSEC or connect the RSEC again that was programmed to the control panel previously
EP23	RSENS PROG ERROR	2 slow flashes 3 quick flashes	RSENS programming error, are R and T paired?	Program the transmitter RSENS to the RSEC receiver card
EP26	STOP	2 slow flashes 6 quick flashes	Control panel stopped by an STOP	Verify that the STOP input has been activated
EP29	DOOR LOCKED RSENS	2 slow flashes 9 quick flashes	Closed door latch	Open the door's latch before the opening man oeuvre
EP30	RBAND NOT FOUND	3 slow flashes 10 quick flashes	Control panel programmed with RBAND connected and now it is not connected	Program the control panel again without using RBAND or connect the RBAND that was connected to the control panel previously
EP31	RBAND NC WHEN PROG	3 slow flashes 1 quick flashes	Control panel not programmed with RBAND connected	Connect the RBAND card and program the control panel again
EP32	FC NOT LEARNT	3 slow flashes 2 quick flashes	End of course learning error	Verify the intern motor limit switches
EP33	ERROR SYNC RSENS	3 slow flashes 3 quick flashes	Synchronization error between the receiver and the transmitter	Program the transmitter RSENS to the RSEC receiver card
EP36	RSENS RADIO ERROR	3 slow flashes 6 quick flashes	Detection through opening current	Verify the batteries of the RSENS emitter id they are charged, verify the radio signal with the Check function
EP39	CTROL PANEL BLOCKED	3 slow flashes 9 quick flashes	Control panel cannot enter programming because it is blocked.	Enter the password with V-DPLAY or VERSUS-PROG for unlocking the control panel.

Starting up

Radio channels

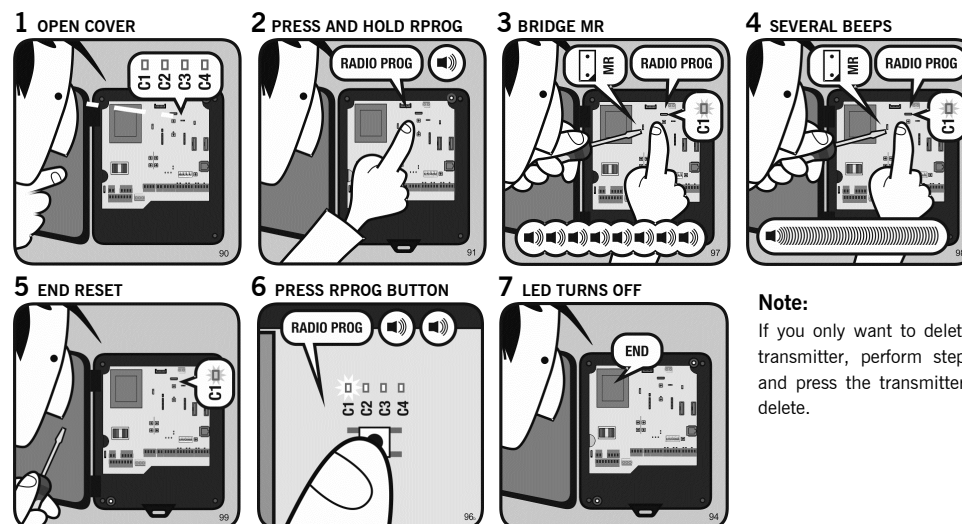Built-in receiver 868 MHz, with memory for 27 users. Plug-in card with 500 users available.

Channel	Function (by default)	
C1	Start	Open - Stop - Close - Open
C2	Pedestrian	It performs the same function as the Start button but only for a sheet.
C3	Open	Open. If you press when the door is closing, stops and reverses movement.
C4	Close	Close. If you press when the door is opening, stops the movement.

Radio programming

Select the desired program by pressing RADIO PROG button until the LED of the desired channel turns on. The button pressed on the transmitter will be associated with the selected channel and will perform its function.

1 OPEN COVER **2** PRESS RPROG BUTTON **3** LED C1 TURNS ON * **4** PRESS TRANSMITTER

5 PRESS RPROG BUTTON **6** C1 LED TURNS OFF

Note:

1- If an MEM 500 is connected once the transmitters has been programmed on the built-in receiver, these codes will pass to the MEM500 and deleted from the memory of the built-in receiver.

2- It is forbidden to connect a MEM500 with programmed transmitters in a control panel with programmed transmitters on the built-in receiver.

Reset of transmitters codes

1 OPEN COVER **2** PRESS AND HOLD RPROG **3** BRIDGE MR **4** SEVERAL BEEPS

5 END RESET **6** PRESS RPROG BUTTON **7** LED TURNS OFF

Note:

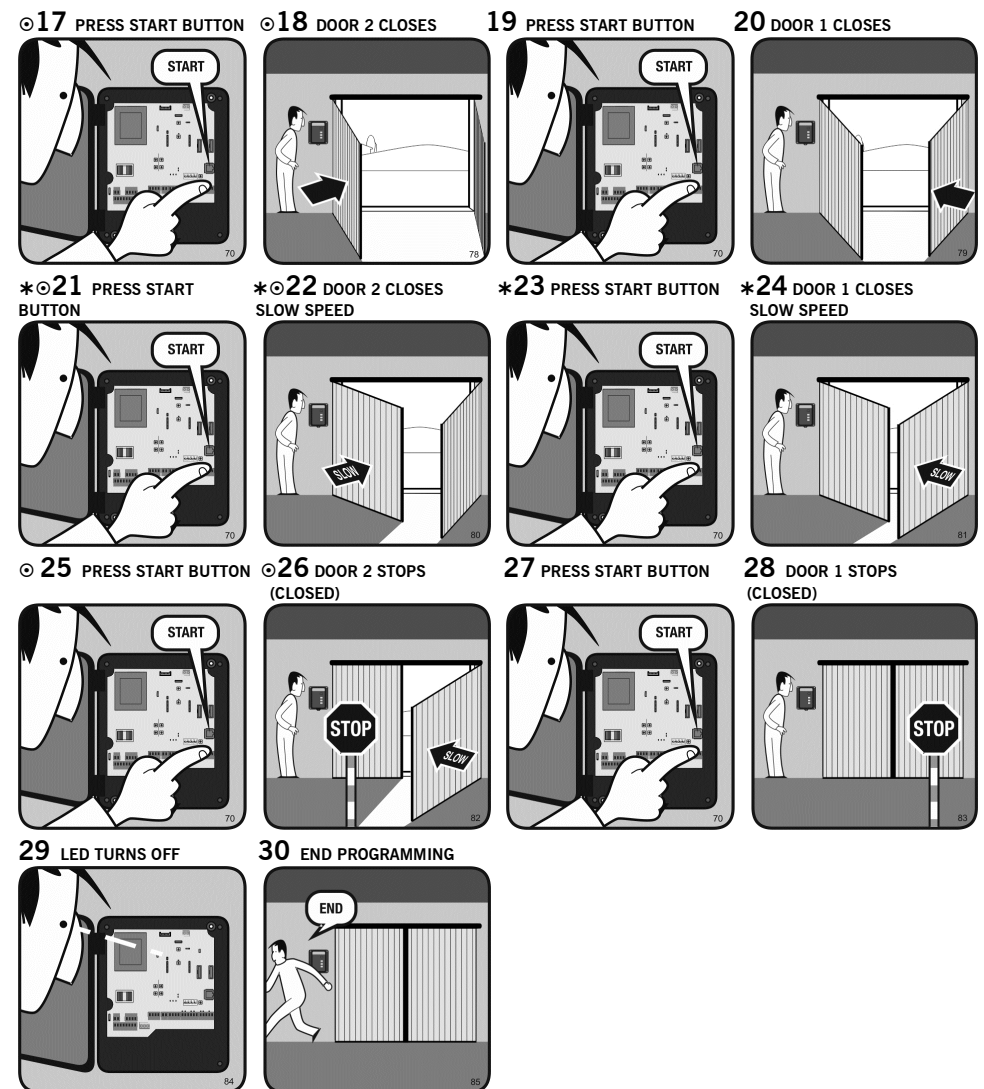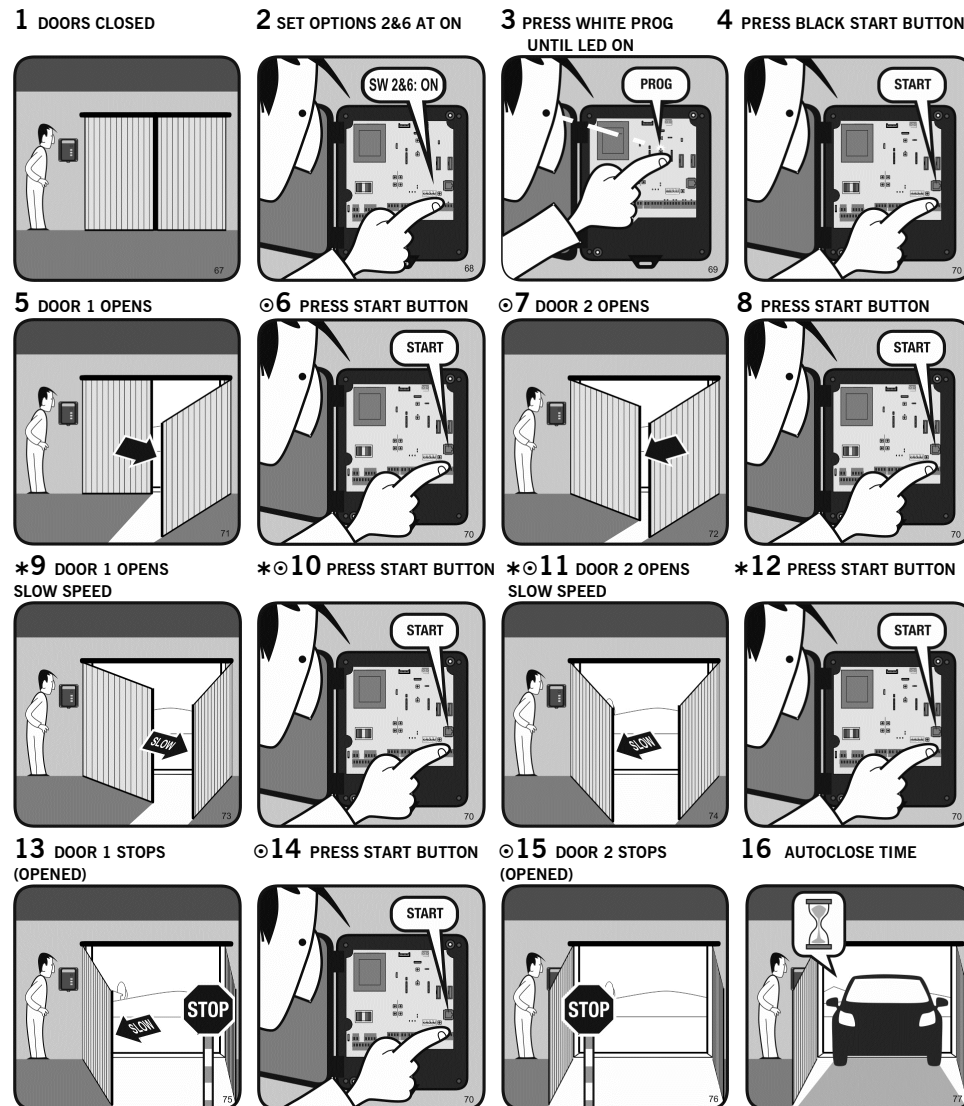If you only want to delete a transmitter, perform step 3 and press the transmitter to delete.

Starting up

Manual programming with two motors with slow speed

To program the door maneuver is necessary to use the PROG button to start programming and the START button to perform each step in the sequence.

1 DOORS CLOSED

2 SET OPTIONS 2&6 AT ON

SW 2&6: ON

3 PRESS WHITE PROG UNTIL LED ON

PROG

4 PRESS BLACK START BUTTON

START

5 DOOR 1 OPENS

⊙**6** PRESS START BUTTON

START

⊙**7** DOOR 2 OPENS

8 PRESS START BUTTON

START

∗**9** DOOR 1 OPENS SLOW SPEED

SLOW

∗⊙**10** PRESS START BUTTON

START

∗⊙**11** DOOR 2 OPENS SLOW SPEED

SLOW

∗**12** PRESS START BUTTON

START

13 DOOR 1 STOPS (OPENED)

SLOW STOP

⊙**14** PRESS START BUTTON

START

⊙**15** DOOR 2 STOPS (OPENED)

STOP

16 AUTOCLOSE TIME

⊙**17** PRESS START BUTTON

START

⊙**18** DOOR 2 CLOSES

19 PRESS START BUTTON

START

20 DOOR 1 CLOSES

∗⊙**21** PRESS START BUTTON

START

∗⊙**22** DOOR 2 CLOSES SLOW SPEED

SLOW

∗**23** PRESS START BUTTON

START

∗**24** DOOR 1 CLOSES SLOW SPEED

SLOW

⊙**25** PRESS START BUTTON

START

⊙**26** DOOR 2 STOPS (CLOSED)

STOP SLOW

27 PRESS START BUTTON

START

28 DOOR 1 STOPS (CLOSED)

STOP

29 LED TURNS OFF

30 END PROGRAMMING

END

Manual programming with two motors without slow speed

In step 2, set only the 6 option at ON.
Follow the above sequence without performing the steps marked with '∗'.

Manual programming with one motor with slow speed

In step 2, set only the 2 option at ON.
Follow the above sequence without performing the steps marked with '⊙'.

Manual programming with one motor without slow speed

In step 2, set options 2 and 6 at OFF.
Follow the above sequence without performing the steps marked with '∗ and/or ⊙'.