CAME

FA01747-EN

88003-0124

CE

EN English

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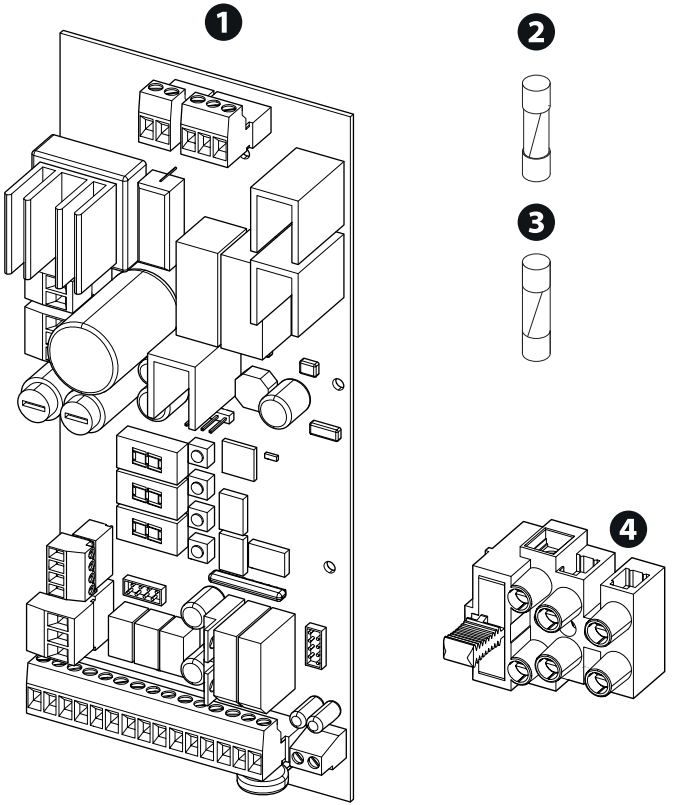
DESCRIPTION OF PARTS

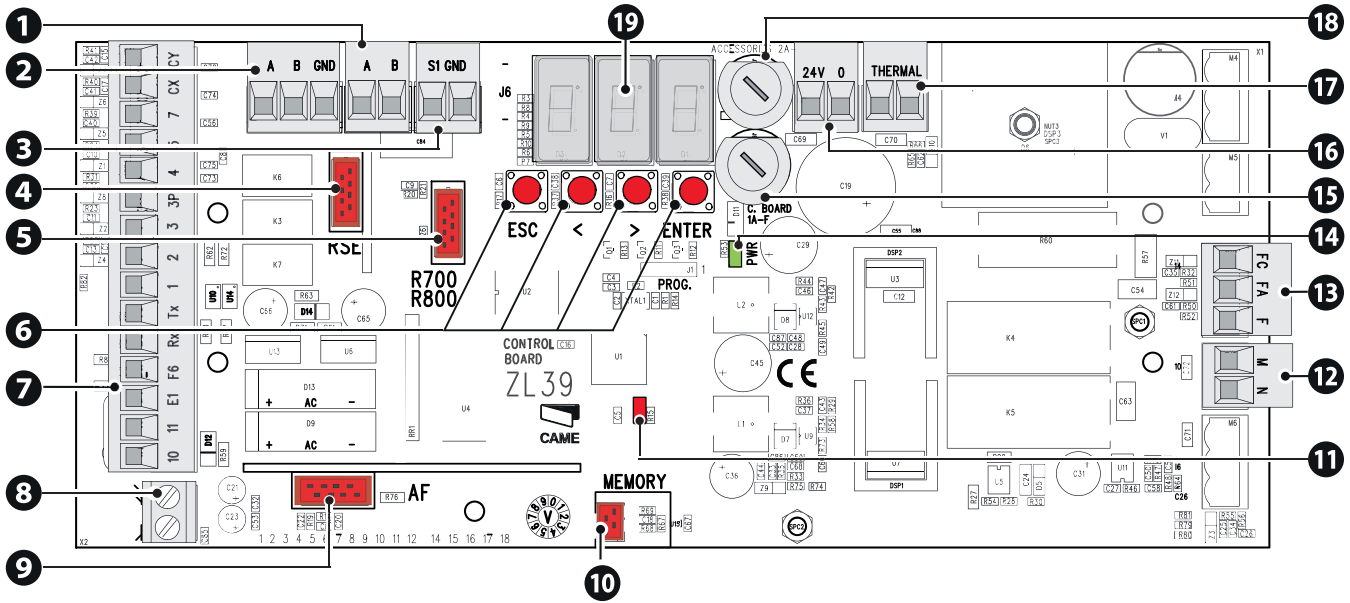


1. Control board ZL39B
2. Fuse 1.6A (line 230 V)
4. Terminal block with fuse compartment
3. Fuse 3.15A (line 120 V)

The board is not compatible with the LB38 battery charger. When battery operated, use LB39.

Paired operation between operators with ZL38 and ZL39B is not available. Only activate operation on operators with the same control board.

Control board ZL39B



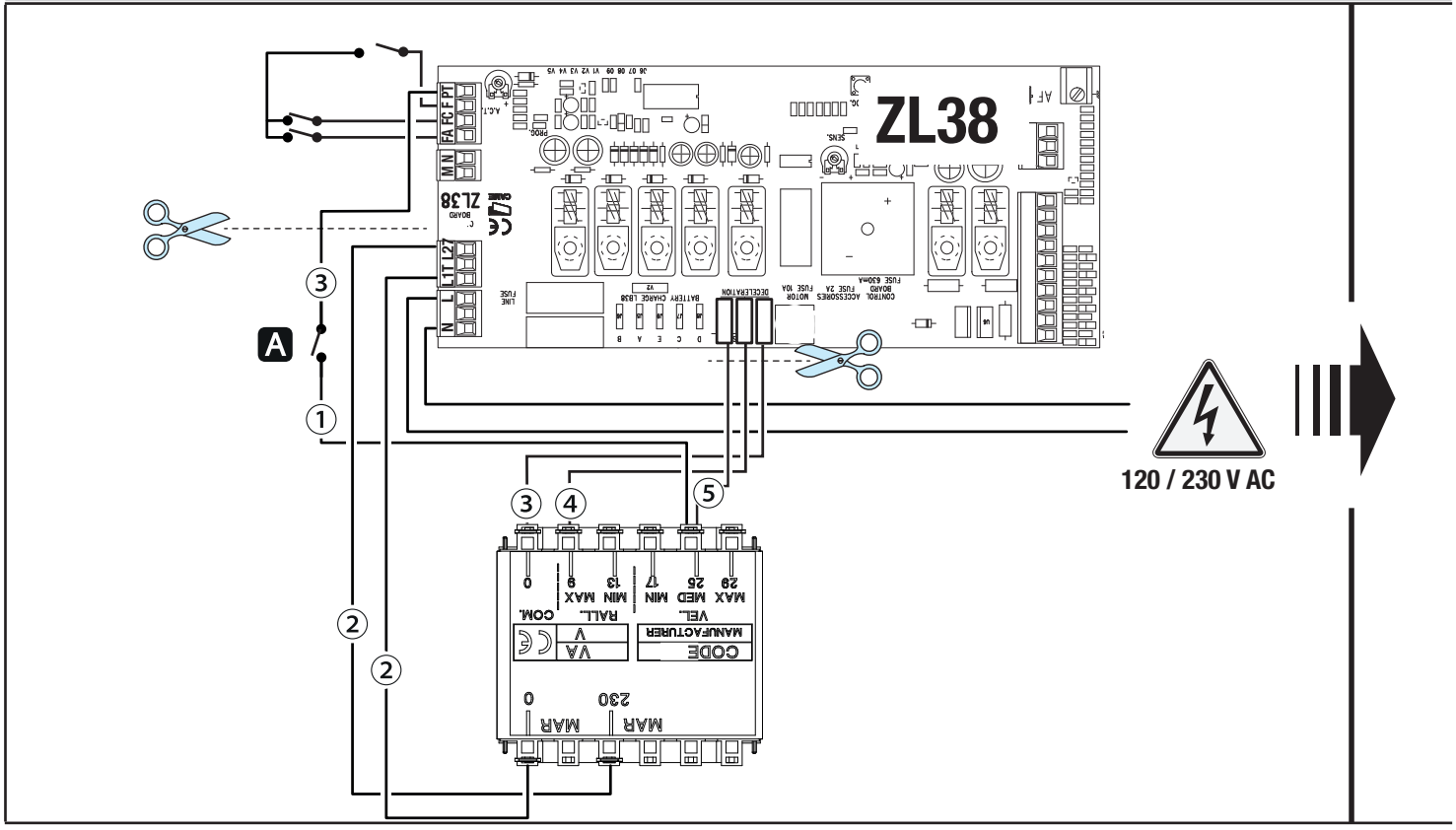
1. Terminal board for connecting the keypad selector
2. Terminal board associated with the RSE connector for paired, alternate or CRP connection
3. Terminal board for connecting the transponder selector switch
4. RSE card connector
5. Connector for the R700 or R800 decoding card
6. Programming buttons
7. Terminal board for connecting control and safety devices
8. Terminal board for connecting the antenna
9. Connector for plug-in radio frequency card (AF)
10. Memory Roll card connector
11. Programming status warning LED
12. Terminal board for motor power supply
13. Terminal board for limit-switch micro-switches
14. Power LED
15. Control board fuse
16. Terminal board for connecting the transformer
17. Terminal board for connecting the transformer thermal cut-off switch
18. Accessories fuse
19. Display

ELECTRICAL CONNECTIONS

⚠ **Before working on the control panel, cut off the mains power supply.**

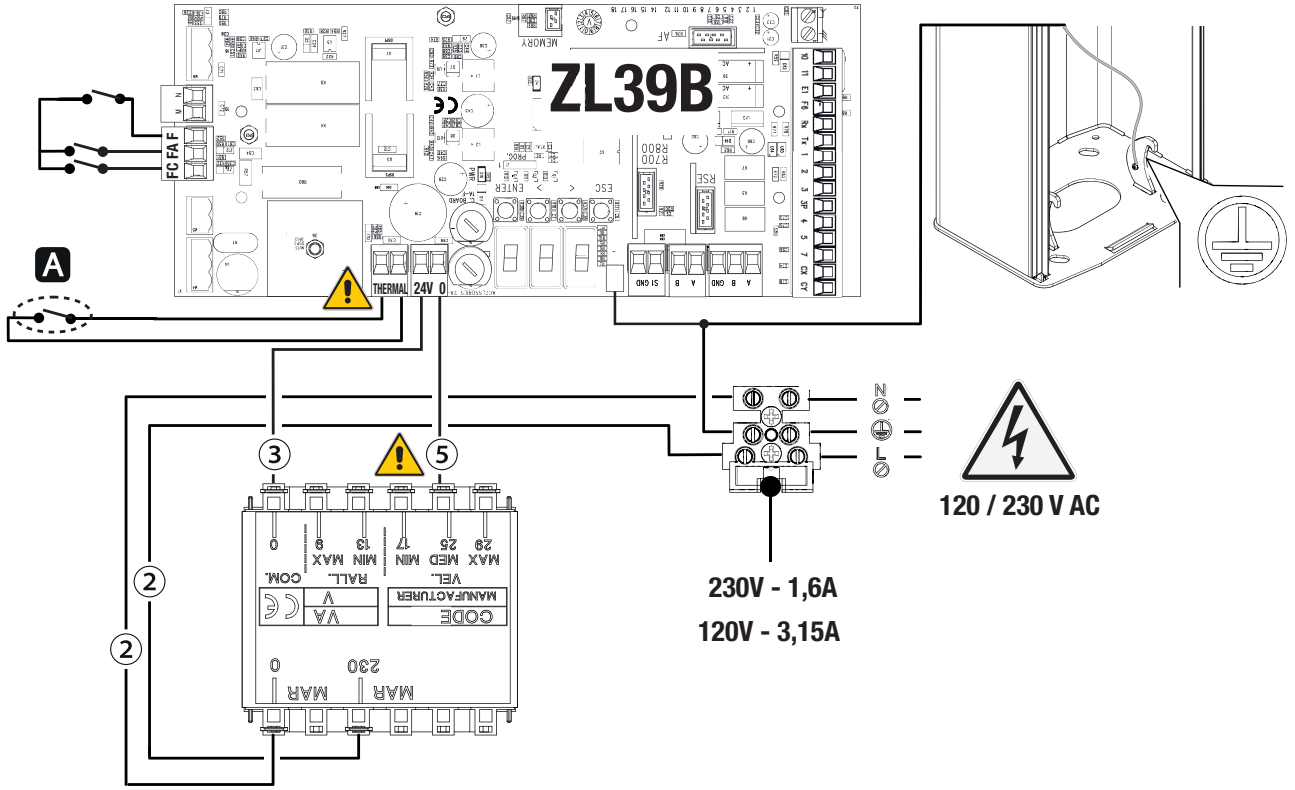
① Blue cable ② Brown cable ③ White cable ④ Red cable ⑤ Black cable

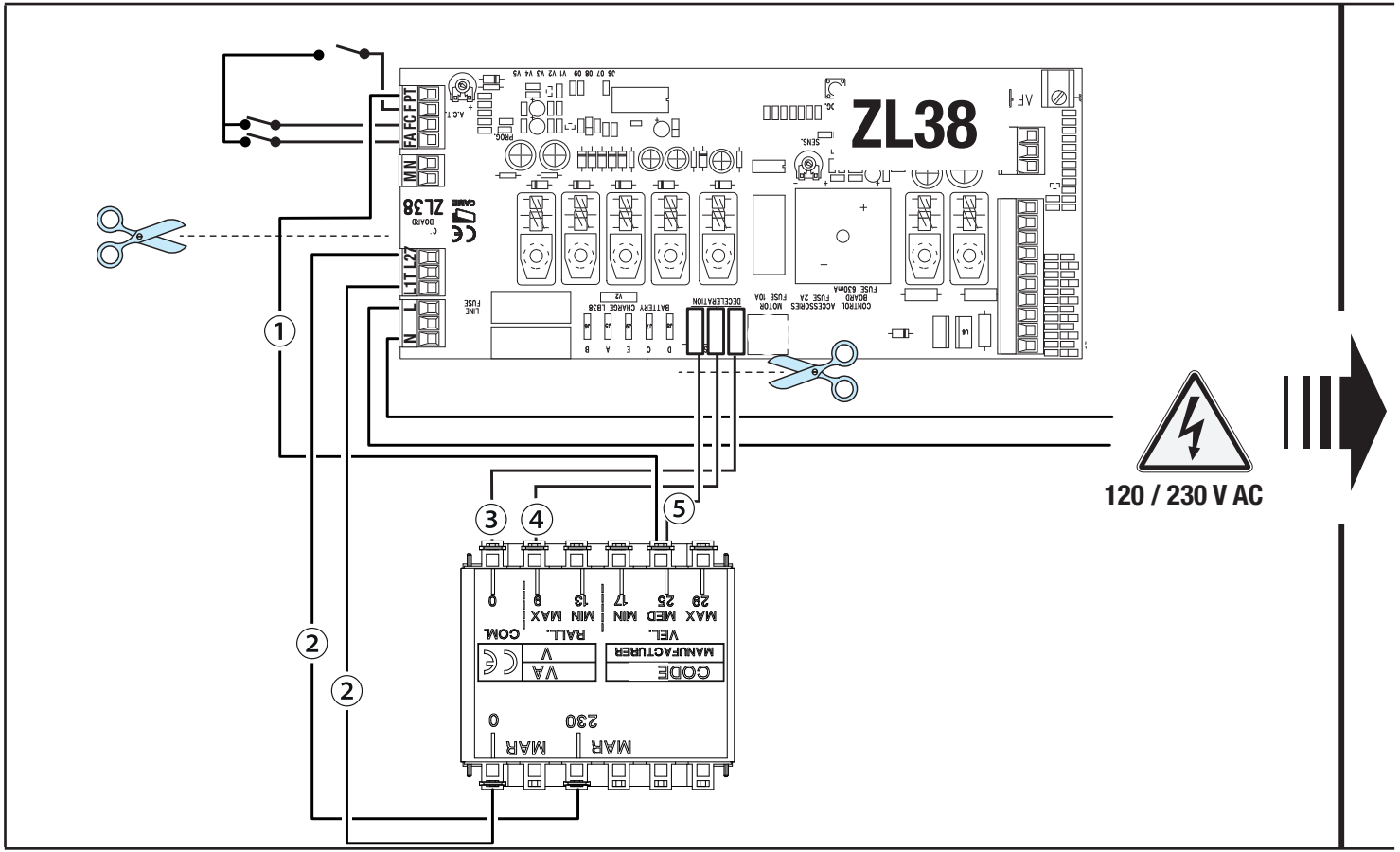
G4040Z barrier with ZL38



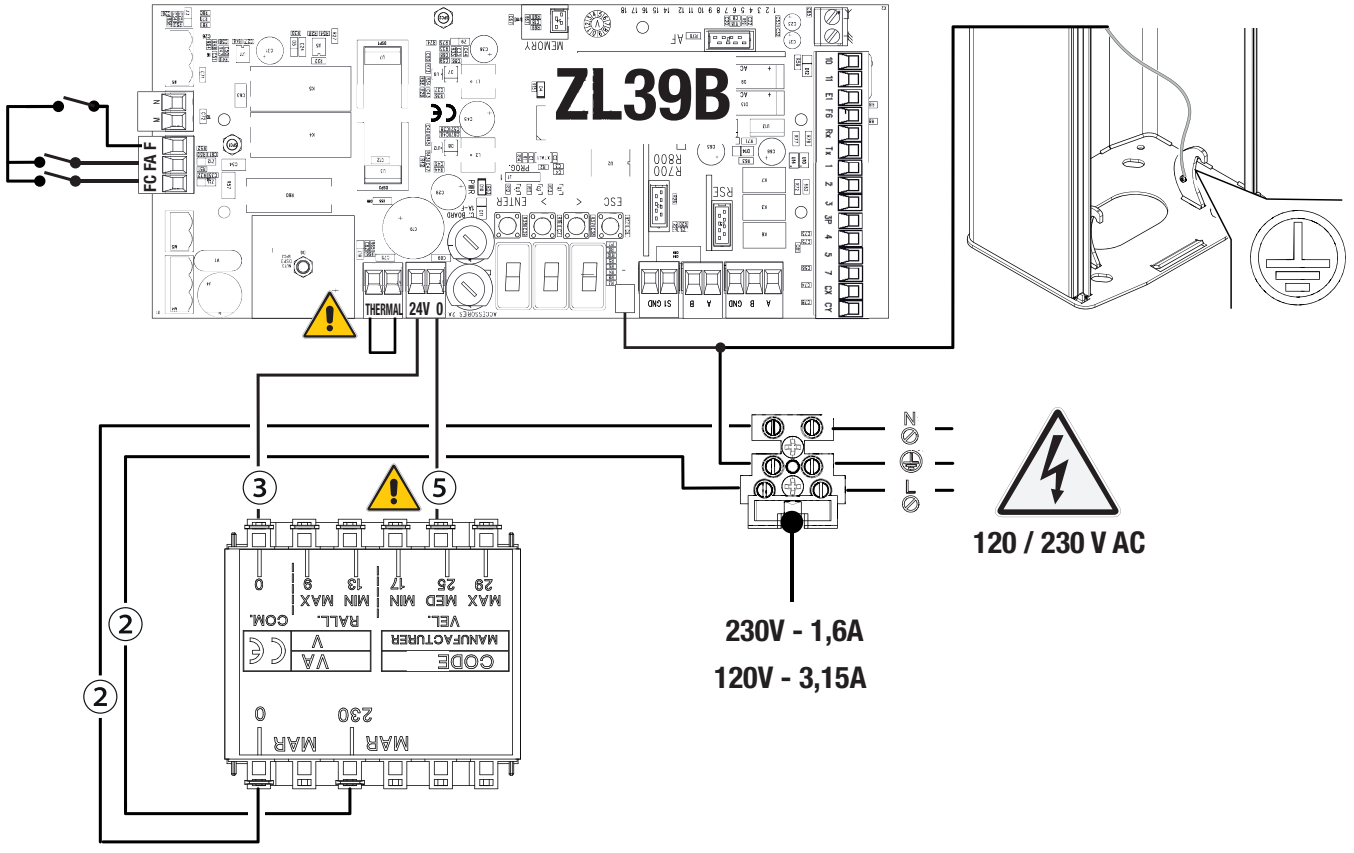
⚠ **Always insert the line fuse in the terminal block.**

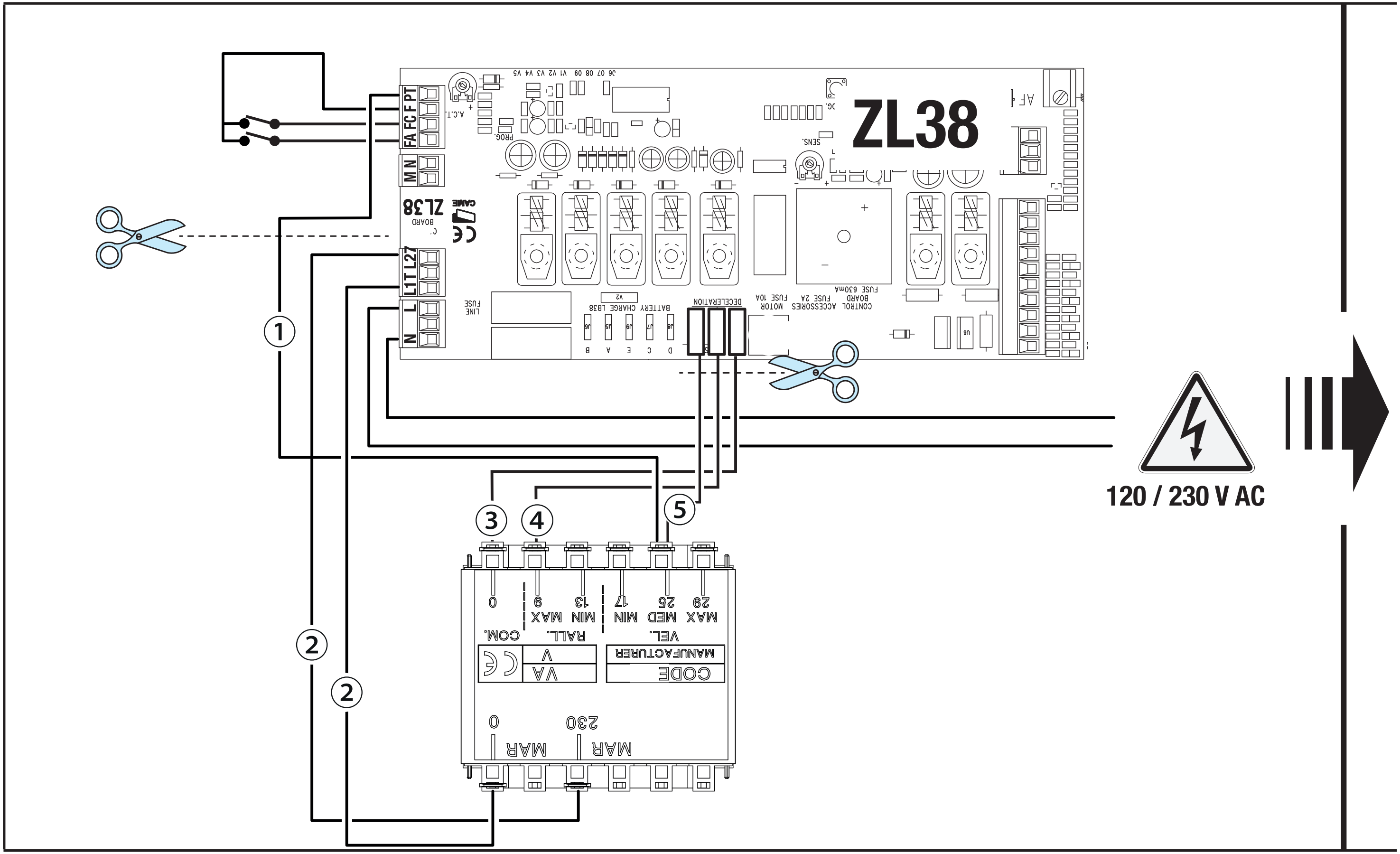
A Gearmotor release microswitch




ZL38
FA FC FPT
MN
L1T L2T
L
N
1
2
2
3
4
5
120 / 230 V AC
MAR
230
MAR
MANUFACTURER
CODE
VEL.
MAX 29
MED 25
MIN 17
MIN 13
MAX 9
RALL.
0
COM.
VA
V

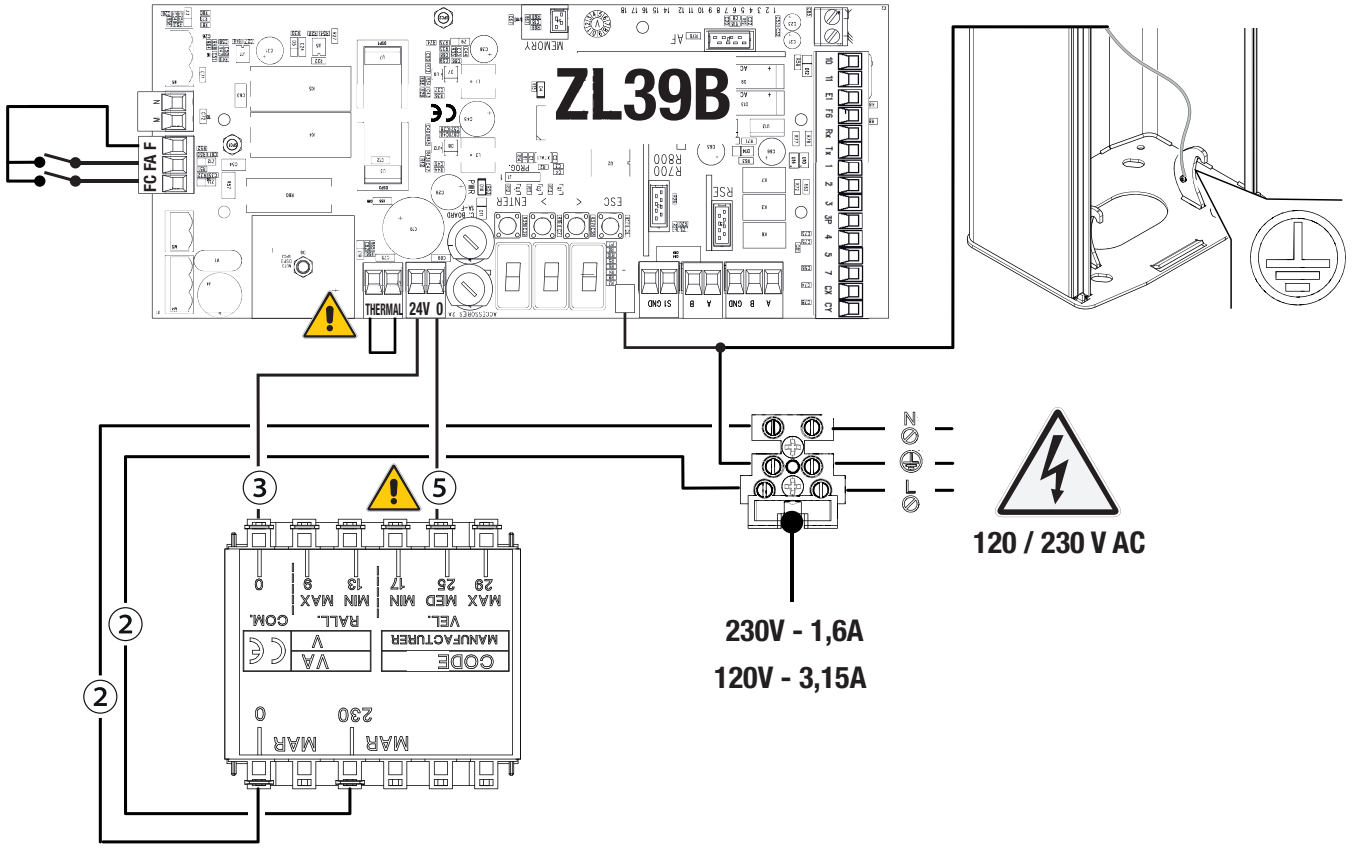
⚠ Always insert the line fuse in the terminal block.





ZL38
FA FC F PT
M N
L1T L27
L N
ZL38 BOARD
FUSE LINE
BATTERY CHARGE LB38
DECELERATION
FUSE 10A MOTOR
FUSE 2A ACCESSORIES
FUSE 630mA CONTROL BOARD
SENS.
A.C.T.
PROG.
1
2
2
3
4
5
120 / 230 V AC
0
9
13
17
25
29
MAX MIN
MIN MED MAX
COM.
RALL.
VEL.
V
VA
MANUFACTURER
CODE
0
230
MAR
MAR

⚠ Always insert the line fuse in the terminal block.



Maximum capacity of contacts

📖 **The total power of the outputs listed below must not exceed the maximum output power [Accessories]**

Device	Output	Power supply (V)	Power (W)
Accessories	10 - 11	24 AC	40
Additional light	10 - E1	24 AC	25
Flashing beacon	10 - E1	24 AC	25
Operator status warning light	10 - 5	24 AC	3

Command and control devices

❶ STOP button (NC contact)

This stops the boom and excludes automatic closing. Use a control device to resume movement.

📖 **If the contact is not used, it must be deactivated during programming.**

❷ Control device (NO contact)

OPEN ONLY function

📖 **When the [HOLD-TO-RUN] function is active, the control device must be connected during OPENING.**

❸ Control device (NO contact)

PARTIAL OPENING function

📖 **The contact must only be used for operators working in paired mode.**

❹ Control device (NO contact)

CLOSE ONLY function

📖 **When the [HOLD-TO-RUN] function is active, the control device must be connected during CLOSING.**

❺ Control device (NO contact)

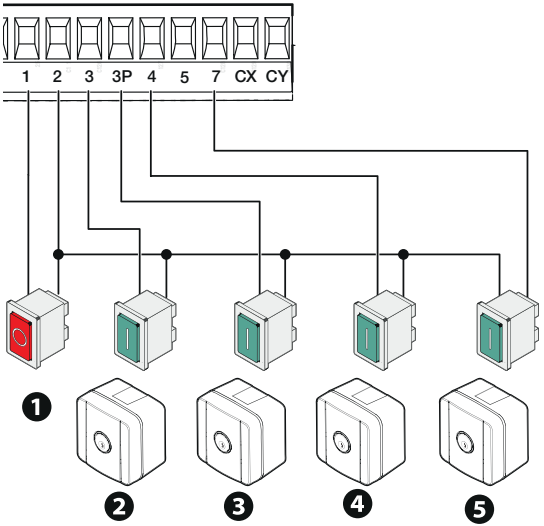
OPEN-CLOSE function

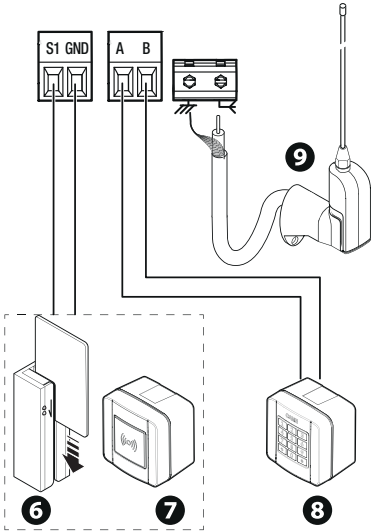
❻ Card reader

❼ Transponder selector switch

❽ Keypad selector

❾ Antenna with RG58 cable





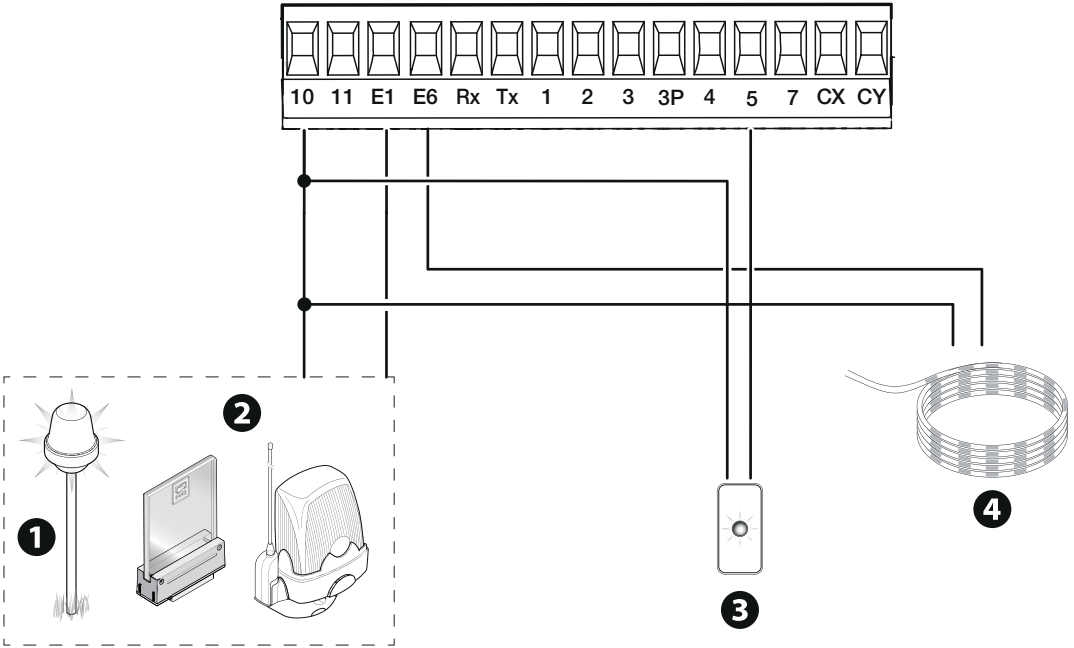
Signalling devices

❶ Additional light
It increases the light in the manoeuvring area.

❷ Additional flashing beacon
It flashes when the operator opens and closes.

❸ Operator status warning light
It notifies the user of the operator status.

❹ Rope light
It flashes when the operator opens and closes.



Safety devices

Connect the safety devices to the CX and/or CY inputs.

During programming, configure the type of action that must be performed by the device connected to the input.

📖 **If contacts CX and CY are not used, they must be deactivated during programming.**

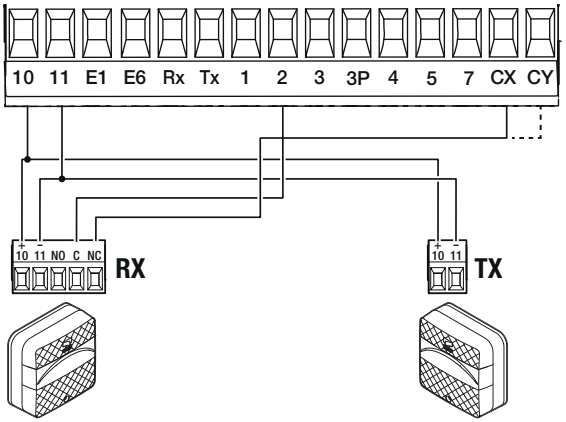
📖 **Multiple photocell pairs can be connected.**

📖 **For Safety Devices Test mode, please see the [F5] function.**

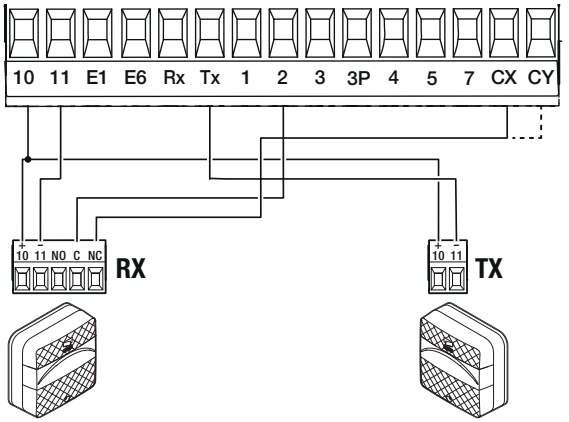
📖 **For Sleep mode, please see the [F60] function.**

DELTA photocells

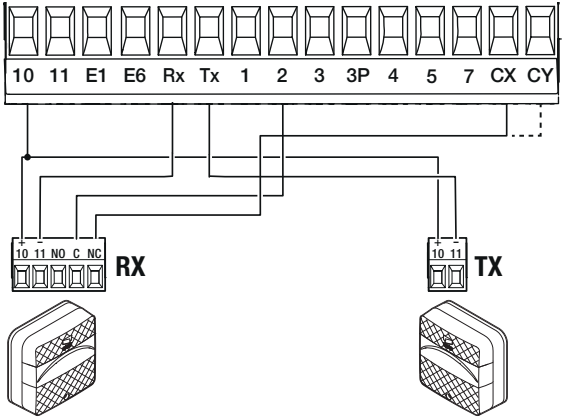
Standard connection



Connection with safety test

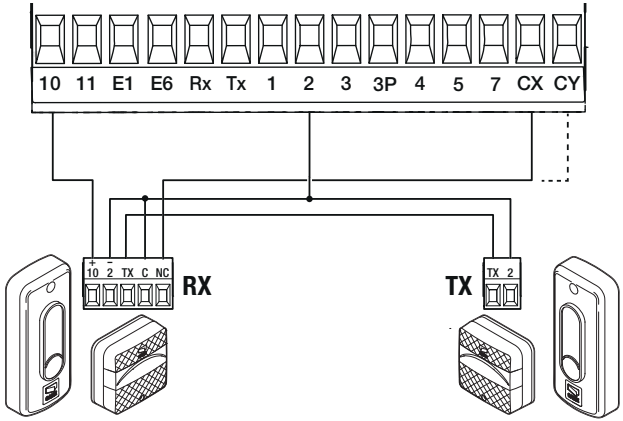


Connection with Sleep Mode

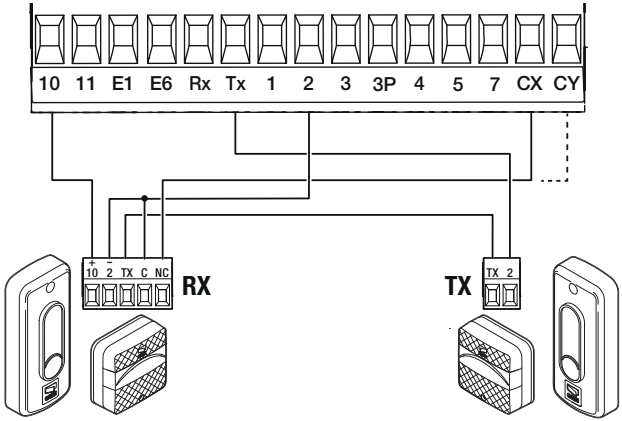


DIR / DELTA-S photocells

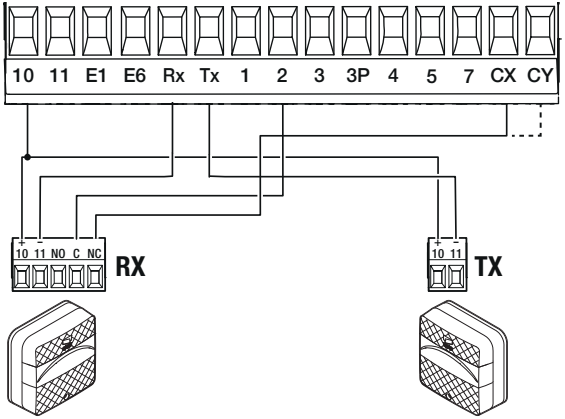
Standard connection



Connection with safety test

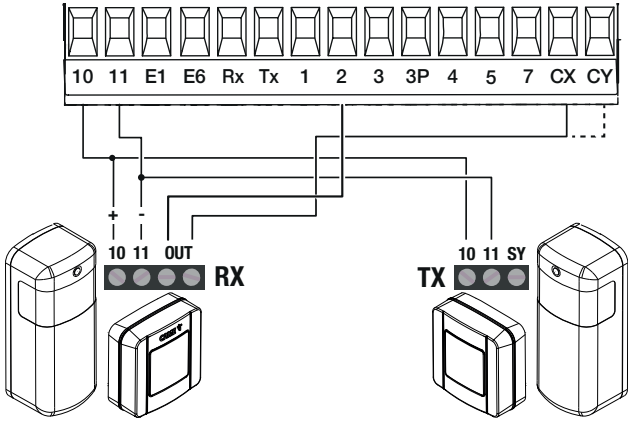


Connection with Sleep Mode

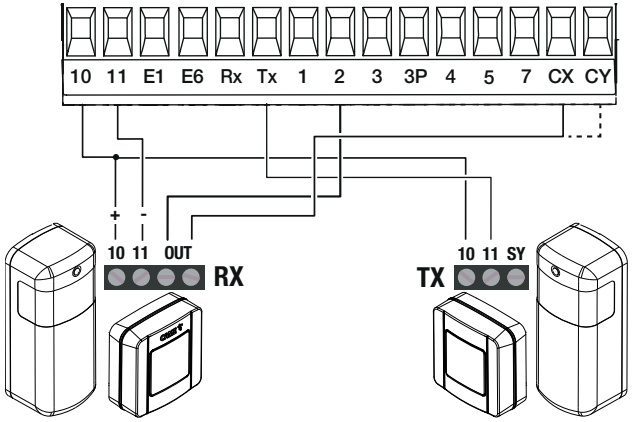


DXR/DLX photocells

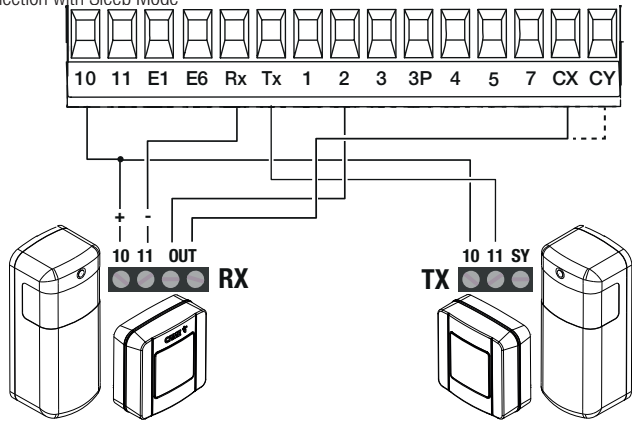
Standard connection



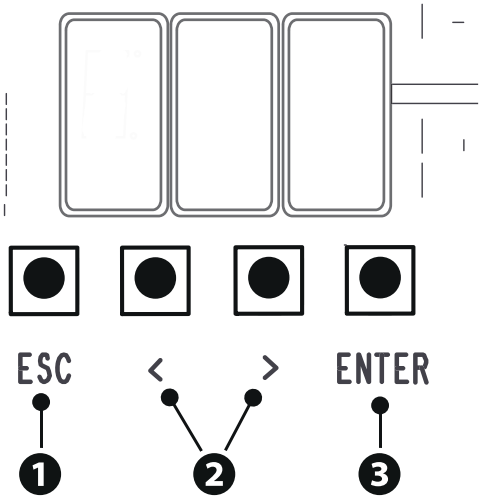
Connection with safety test



Connection with Sleep Mode



Programming button functions



❶ ESC button

The ESC button is used to perform the operations described below.
Exit the menu
Delete the changes
Go back to the previous screen

❷ < > buttons

The <> buttons are used to perform the operations described below.
Navigate the menu
Increase or decrease values

❸ ENTER button

The ENTER button is used to perform the operations described below.
Access menus
Confirm choice

Getting started

Once the electrical connections have been made, proceed with commissioning. Only skilled and qualified staff may perform this operation.

Check the warning and safety devices are working properly.

Make sure that there are no obstacles in the way.
Power up and proceed with the operations indicated below.

A2 Motor test

F1 Total stop

After powering up the system, the first manoeuvre is always to open the gate Wait for the manoeuvre to be completed.

Press the ESC button or STOP button immediately in the event of any faults, malfunctions, strange noises or vibrations, or unexpected behaviour in the system.

At the end of commissioning, check the correct operation of the device using the buttons near the display. Check that the accessories also work correctly.

Functions menu

Total stop

This stops the boom and excludes automatic closing. Use a control device to resume movement.

F1	**Total stop**	0 =Deactivated (Default) 1 = Activated

Inputs CX CY

Associate a function with the input CX CY

F2 **F3**	**CX input** **CY input**	0 =Deactivated (Default) 1 = C1 = Reopening while closing (Photocells) 4 = C4 = Obstacle wait (Photocells)	5 = C5 = Immediate closing at the opening travel end 9 = C9 = immediate closing at the travel end during opening with obstacle waiting, during closing

Safety devices test

Check that the photocells connected to the inputs are operating correctly, after each opening and closing command.

F5	Safety devices test	0 =Deactivated (Default) 1 = CX 2 = CY 3 = CX+CY

Hold-to-run

With the function active, the operator stops moving (opening or closing) when the control device is released.

📖 **When the function is active, it excludes all other control devices.**

F6	Hold-to-run	0 =Deactivated (Default) 1 = Activated

Obstacle with motor stopped

With the function active, the boom remains stopped if the safety devices detect an obstacle. The function activates with: closed boom, open boom or after a complete stop.

F9	**Obstacle with motor stopped**	0 =Deactivated (Default) 1 = Activated

Open warning light

Barrier status warning. Device connected to the 10-5 output.

F10	Open warning light	0 = Warning light on (default) - The light stays on when the boom is moving or open. 1 = Warning light flashing - The warning light flashes every half a second when the boom is opening and remains on when the boom is open. The light flashes every second when the boom is closing, and remains off when the boom is closed.

Sensor type

Set the type of control device.

F14	Sensor type	0 = Transponder 1 = Keypad (Default)

Flashing rope light

Choose how you would like the barrier status to be signalled using the rope light flash settings.

F15	**Flashing rope light**	0 = The rope light flashes when the boom is moving (Default). 1 = The rope light flashes when the boom is moving and when closed.

Light E1

Choose the type of device connected to the output.

F18	**Light E1**	0 =Flashing beacon (Default) 1 = Cycle light 📖 **This parameter does not appear if there [Automatic Close] function is deactivated.** 2 = Courtesy light. The lighting device remains on for the time set for the [Courtesy time] function.

Automatic closure

Set the time before automatic closure is activated, once the opening travel end point has been reached.

📖 **The function does not work if any of the safety devices are triggered when an obstacle is detected, after a complete stop, during a power outage or if there is an error.**

F19	**Automatic closure**	0 =Deactivated (Default) From 1 to 180 seconds

Pre-flashing time

Set the time for which the beacon is activated before each manoeuvre.

F21	**Pre-flashing time**	0 =Deactivated (Default) 1 to 10 seconds

Operating time

Set the gearmotor working time during opening and closing.

F22	**Operating time**	5 to 120 seconds (default 20 seconds)

Courtesy time

Set the lighting device operation time.

F25	Courtesy time	60 to 180 seconds (Default 180 seconds)

Opening and closing speed

Set the opening and closing speed

📖 **For booms complete with accessories (swing rest and/or skirt), reduce the speed.**

F28	Opening and closing speed	MIN = minimum speed (Default) MED = average speed MAX = maximum speed

Slow-down speed

Set the slowdown speed.

F30	Slow-down speed	MIN = minimum slowdown speed (Default) MED = average slowdown speed MIN = maximum slowdown speed

Calibration speed

Set the travel self-learning speed (percentage of maximum speed) and first manoeuvre speed

F33	Calibration speed	20% to 30%

Travel sensitivity

Adjust the obstruction detection sensitivity during boom travel.

F34	Travel sensitivity	10% to 100% (Default 100%) - 10% = maximum sensitivity - 100% = minimum sensitivity

Slowdown sensitivity
Adjust the obstacle-detection sensitivity level during slowdown.

F35	**Slowdown sensitivity**	10% to 100% (Default 98%) - 10% = maximum sensitivity - 100% = minimum sensitivity

RSE
Configure the function to be performed by the card inserted in the RSE1 connector.

F49	**RSE**	0 =Deactivated (Default) 1 = Paired 2 = Compass 3 = CRP/CAME KEY

Save data
Save user data, timings and configurations to the memory device (memory roll or USB key).

F50	**Save data**	0 =Deactivated (Default) 1 = Activated

Read data
Upload user data, timings and configurations from the memory device (memory roll or USB key).

F51	**Read data**	0 =Deactivated (Default) 1 = Activated

Transferring MASTER-SLAVE parameters
Enable the sharing of parameters programmed on the Master barrier with the Slave barrier.
📖 **This only appears if the F49 function is set to Paired or Alternate.**

F52	**Transferring MASTER-SLAVE parameters**	0 =Deactivated (Default) 1 = Activated

CRP address

Assign a unique identification code (CRP address) to the control board. It is used where there are multiple operators connected via CRP.

F56	**CRP address**	from 1 to 255

Sleep mode

This reduces the consumption of the photocells when they are in standby.

F60	**Sleep mode**	0 =Deactivated (Default) 1 = Activated

Pre-flashing

Choose the type of manoeuvre that activates the flashing beacon in advance.

📖 **Set how much earlier the flashing beacon is activated under the function [Pre-flashing time].**

F61	**Pre-flashing**	0 = when opening and closing (Default) 1 = only when closing 2 = only when opening

RSE speed

Set the remote connection system communication speed on the RSE port.

F63	**RSE speed**	0 = 1200 bps 1 = 2400 bps 2 = 4800 bps 3 = 9600 bps 4 = 14400 bps	5 = 19200 bps 6 = 38400 bps (default) 7 = 57600 bps 8 = 115200 bps

New user

Register a maximum of 25 users and assign a function to each one.

📖 **The operation can be carried out by using a transmitter or another control device. The boards that manage the control devices (AF - R700 - R800) must be inserted into the connectors.**

U1	**New user**	1 = Step-by-step 3 = Open 4 = Partial opening 📖 **When the barrier is in [Paired] mode, the [Partial opening] command opens the Master barrier.**	Choose the function to be assigned to the user. Press ENTER to confirm. You will be asked to enter your user code. Send the code from the control device. Repeat the procedure to add other users.

Remove user

Remove one of the registered users.

U2	**Remove user**	Use the arrows to choose the number associated with the user you want to remove. No.: 1 > 25 Alternatively, the control device associated with the user you want to remove can be activated. Press ENTER to confirm.

Remove all

Remove all registered users.

U3	**Remove all**	0 =Deactivated (Default) 1 = Activated

Radio decoding

Choose the type of radio coding for the transmitters enabled to control the operator.

📖 **If you choose the type of radio coding for the transmitters [Rolling code] or [TW key block], any transmitters with a different type of radio coding saved previously will be deleted.**

U4	**Radio decoding**	1 = All (Default) 2 = Rolling code 3 = TW key block

Motor test

Check the boom opens in the correct direction.

📖 **If the keys do not execute the commands correctly, invert the boom opening direction.**

A2	**Motor test**	The button > makes the motor turn in clockwise direction. The button < makes the motor turn in an anticlockwise direction.

Parameter reset

Restore factory settings except for the functions: [Radio decoding], [Boom length] and the settings related to travel calibration.

A4	**Parameter reset**	0 =Deactivated (Default) 1 = Activated

Manoeuvre counter

View the number of manoeuvres performed by the operator (1 = 1000 manoeuvres).

A5	**Manoeuvre counter**	1 = 1000 maneuvers

FW version

Display the firmware version number.

H1	**FW version**	

Import/export data

❶ Insert the MEMORY ROLL card into the corresponding connector on the control board.

❷ Press the “Enter” button to access programming.

❸ Use the arrows to choose the desired function.

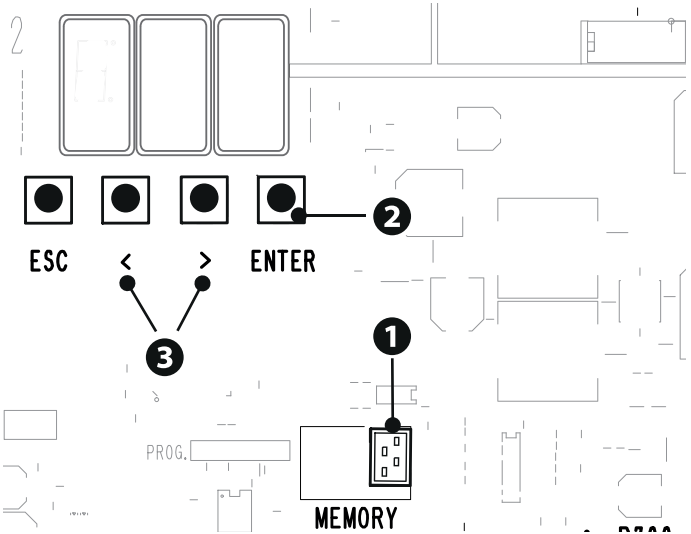
-F50 Save user data, timings and configurations to the memory device (memory roll or USB key).

-F51 Upload user data, timings and configurations from the memory device (memory roll or USB key).

📖 **The functions are displayed only when a MEMORY ROLL card is inserted.**

⚠ **Before inserting and removing the MEMORY ROLL card, DISCONNECT THE MAINS POWER SUPPLY TO THE LINE.**

📖 **Remove the MEMORY ROLL card after the data has been loaded.**



PAIRED OPERATION

Two connected operators are controlled with one command.

Electrical connections

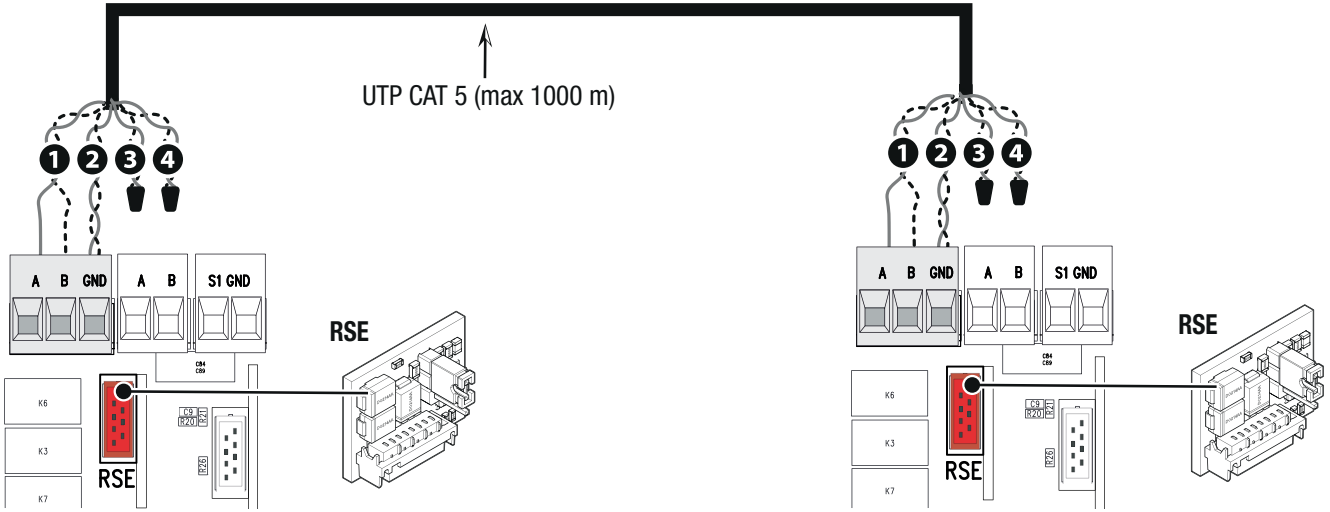
Connect the two electronic boards with a UTP CAT 5 cable.
Fit an RSE card on both control boards using the RSE connector.

Connect up the electrics for the devices and accessories.

📖 **For information on connecting the electrics for the devices and accessories, please see the "ELECTRICAL CONNECTIONS" section.**

📖 **The devices and accessories must be connected to the control board which will be set as the MASTER.**

📖 **Deactivate function F19 on the SLAVE operator control panel.**



Programming

All programming operations described below must be performed only on the control board set as the MASTER.

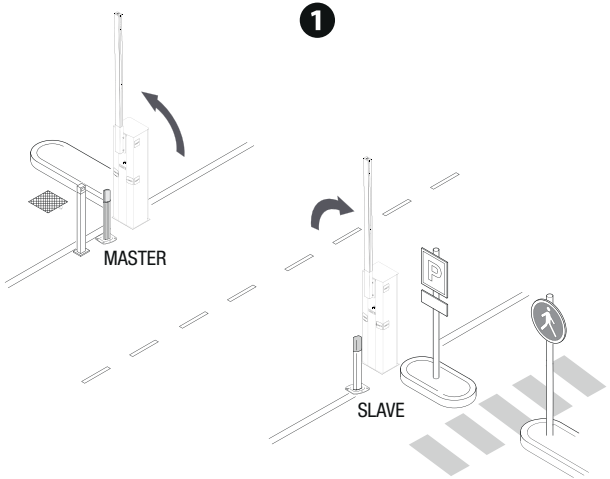
Select function F49.
Press ENTER to confirm.
Select 1.

Select function F52.
Select 1.

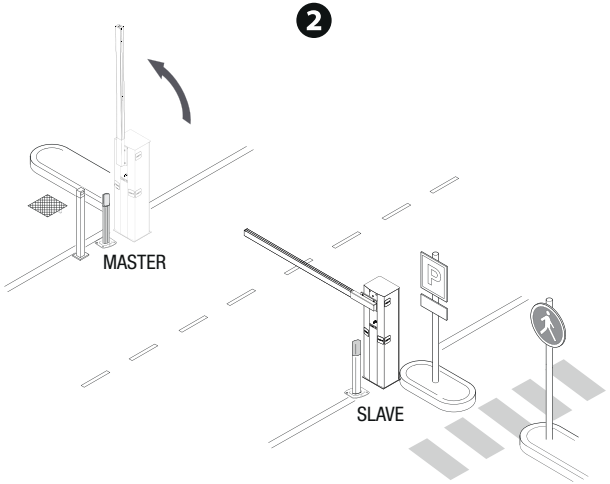
For user storage operations, see function U1.

Operating modes

❶ STEP-BY-STEP or OPEN ONLY command



❷ PARTIAL OPENING command (2-3P)



ALTERNATE OPERATION

The first barrier opens, the vehicle passes, the first barrier closes, the second barrier opens, the vehicle passes and the second barrier closes.

Electrical connections

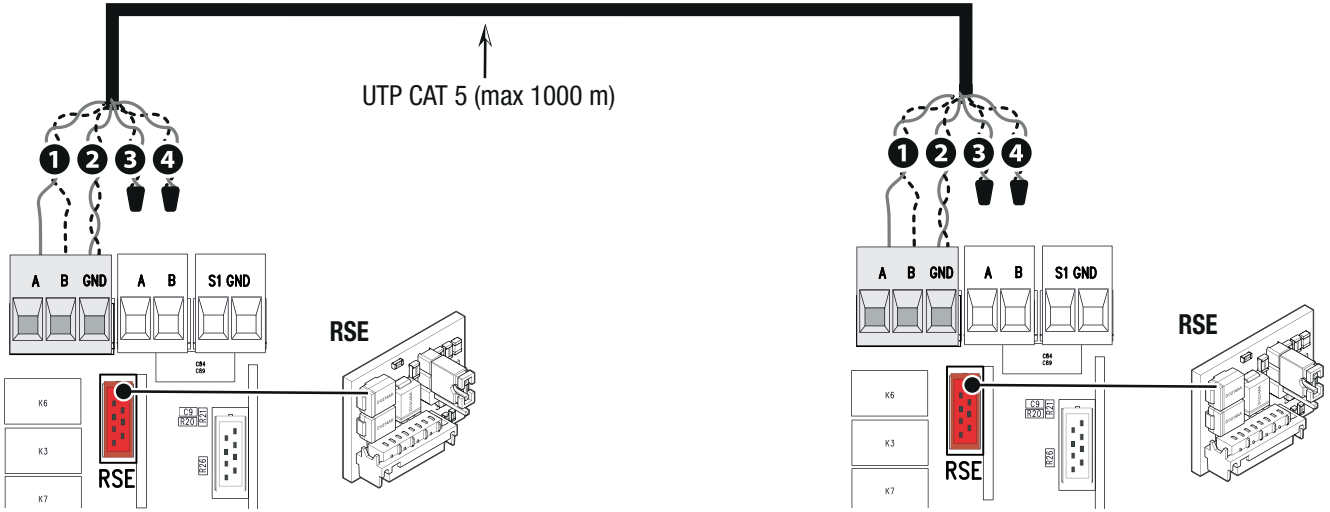
Connect the two electronic boards with a UTP CAT 5 cable.
Fit an RSE card on both control boards using the RSE connector.

Connect up the electrics for the devices and accessories.

📖 **For information on connecting the electrics for the devices and accessories, please see the "ELECTRICAL CONNECTIONS" section.**

📖 **The control and safety devices must be connected on both electronic boards.**

📖 **Deactivate function F19 on the SLAVE operator control panel.**



Programming

📖 **All programming operations described below must be performed only on the control board set as the MASTER.**

Select function F49.
Press ENTER to confirm.
Select 2.

Select function F52.
Select 1.

📖 **For user storage operations, see function U1.**

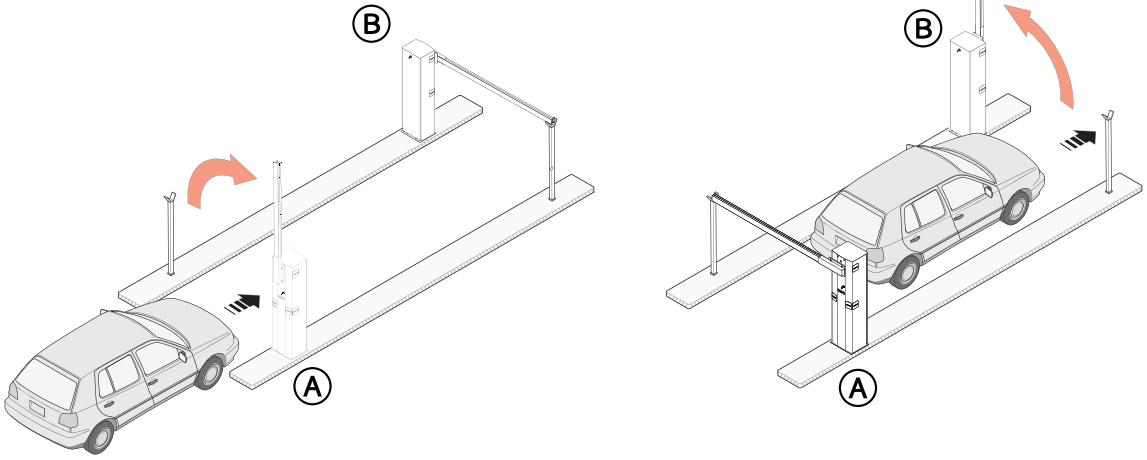
Operating modes

📖 **The MASTER barrier is marked A; the SLAVE barrier is marked B.**

❶ ONLY OPEN command (2-3) on barrier A

📖 **Barrier B opens automatically when barrier A closes.**

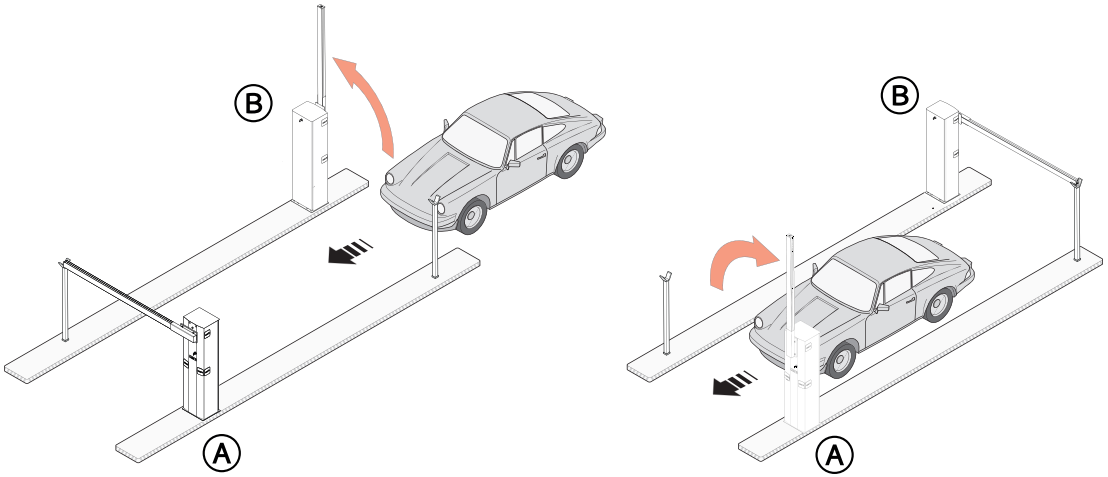
❶



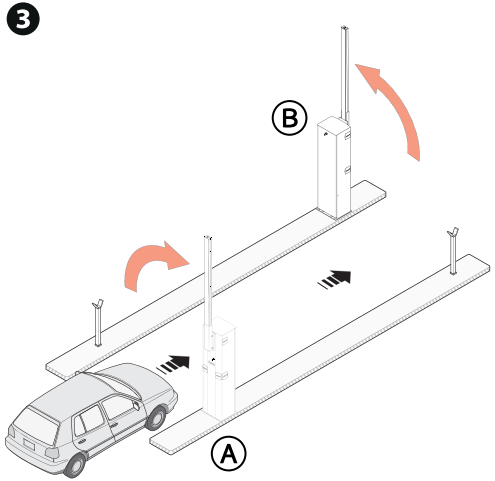
❷ PARTIAL/PEDESTRIAN OPENING command (2-3P) on barrier B

Barrier A opens automatically when barrier B closes.

❷



❸ STEP-BY-STEP command (2-7) on barrier A or B for emergency opening



ERROR MESSAGES

E4	Service test failure error
E6	Maximum number of detected obstructions
E7	Transformer overheating Release mechanism activated Open contact on thermal terminal
E8	Both limit switches are open
E15	Incompatible transmitter error

CAME

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