CAME

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FA01958-EN

ZL65

INSTALLATION MANUAL

EN | Italiano

GENERAL PRECAUTIONS FOR INSTALLERS

⚠ Important safety instructions.

⚠ Please follow all of these instructions. Improper installation may cause serious bodily harm.

⚠ Before continuing, please also read the general precautions for users.

Only use this product for its intended purpose. Any other use is hazardous. • The manufacturer cannot be held liable for any damage caused by improper, unreasonable or erroneous use. • This product has been designed to be assembled to partly completed machinery and/or equipment so as to build machinery as regulated by the Machinery Directive 2006/42/EC. • The final installation must comply with the Machinery Directive (2006/42/EC) and the European reference standards in force. • The manufacturer declines any liability for using non-original products, which would also void the warranty. • All operations indicated in this manual must be carried out exclusively by skilled and qualified personnel and in full compliance with the regulations in force. • The device must be installed, wired, connected and tested according to good professional practice, in compliance with the standards and laws in force. • Make sure the mains power supply is disconnected during all installation procedures. • All the components (e.g. actuators, photocells and sensitive edges) needed for the final installation to comply with the Machinery Directive (2006/42/EC) and with the reference harmonised technical standards are specified in the general CAME product catalogue or on the website www.came.com. • Check that the temperature ranges given are suitable for the installation site. • Make sure that no direct jets of water can wet the product at the installation site (sprinklers, water cleaners, etc.). • Make sure you have set up a suitable dual-pole cut-off device along the power supply that is compliant with the installation rules. It should completely cut off the power supply according to category III surcharge conditions. • Demarcate the entire site properly to prevent unauthorised personnel from entering, especially minors.

• Use suitable protection to prevent any mechanical hazards due to persons loitering within the operating range of the operator. • The electrical cables must pass through special pipes, ducts and cable glands in order to guarantee adequate protection against mechanical damage. • The electrical cables must not touch any parts that may overheat during use (such as the motor and transformer). • Before installation, check that the guided part is in good mechanical condition, and that it opens and closes correctly. • The product cannot be used to automate any guided part that includes a pedestrian gate, unless it can only be enabled when the pedestrian gate is secured. • Make sure that nobody can become trapped between the guided and fixed parts, when the guided part is set in motion. • All fixed controls must be clearly visible after installation, in a position that allows the guided part to be directly visible, but far away from moving parts. In the case of a hold-to-run control, this must be installed at a minimum height of 1.5 m from the ground and must not be accessible to the public. • If not already present, apply a permanent tag that describes how to use the manual release mechanism close to it. • Make sure that the operator has been properly adjusted and that the safety and protection devices and the manual release are working properly. • Before handing over to the final user, check that the system complies with the harmonised standards and the essential requirements of the Machinery Directive (2006/42/EC). • Any residual risks must be indicated clearly with proper signage affixed in visible areas, and explained to end users. • Put the machine's ID plate in a visible place when the installation is complete. • If the power supply cable is damaged, it must be immediately replaced by the manufacturer or by an authorised technical support service, or in any case, by qualified staff, to prevent any risk. • Keep this manual inside the technical folder along with the manuals of all the other devices used for your automation system. • Make sure to hand over to the end user all the operating manuals of the products that make up the final machinery.

DISMANTLING AND DISPOSAL

CAME S.p.A. employs an Environmental Management System at its premises. This system is certified and compliant with the UNI EN ISO 14001 standard to ensure that the environment is respected and safeguarded. Please continue safeguarding the environment. At CAME we consider it one of the fundamentals of our operating and market strategies. Please follow these brief disposal guidelines:

DISPOSING OF THE PACKAGING

The packaging materials (cardboard, plastic, etc.) can be disposed of easily as solid urban waste, separated for recycling.
Before dismantling and disposing of the product, please always check the local laws in force.
DISPOSE OF THE PRODUCT RESPONSIBLY.

DISPOSING OF THE PRODUCT

Our products are made of various materials. Most of these materials (aluminium, plastic, iron and electrical cables) are classified as solid urban waste. They can be separated for recycling and disposed of at authorised waste treatment plants.
Other components (electronic boards, transmitter batteries, etc.) may contain pollutants.
These must be removed and disposed of by an authorised waste disposal and recycling firm.
It is always advisable to check the specific laws that apply in your area.
DISPOSE OF THE PRODUCT RESPONSIBLY.

PRODUCT DATA AND INFORMATION

Key

📖 This symbol shows which parts to read carefully.

⚠ This symbol shows which parts describe safety issues.

☞ This symbol shows what to tell users.

The measurements, unless otherwise stated, are in millimetres.

Description

002ZL65

Control panel for one or two-leaf swing gates, with programming display, on-board radio decoding and self-diagnosing safety devices.

Technical data

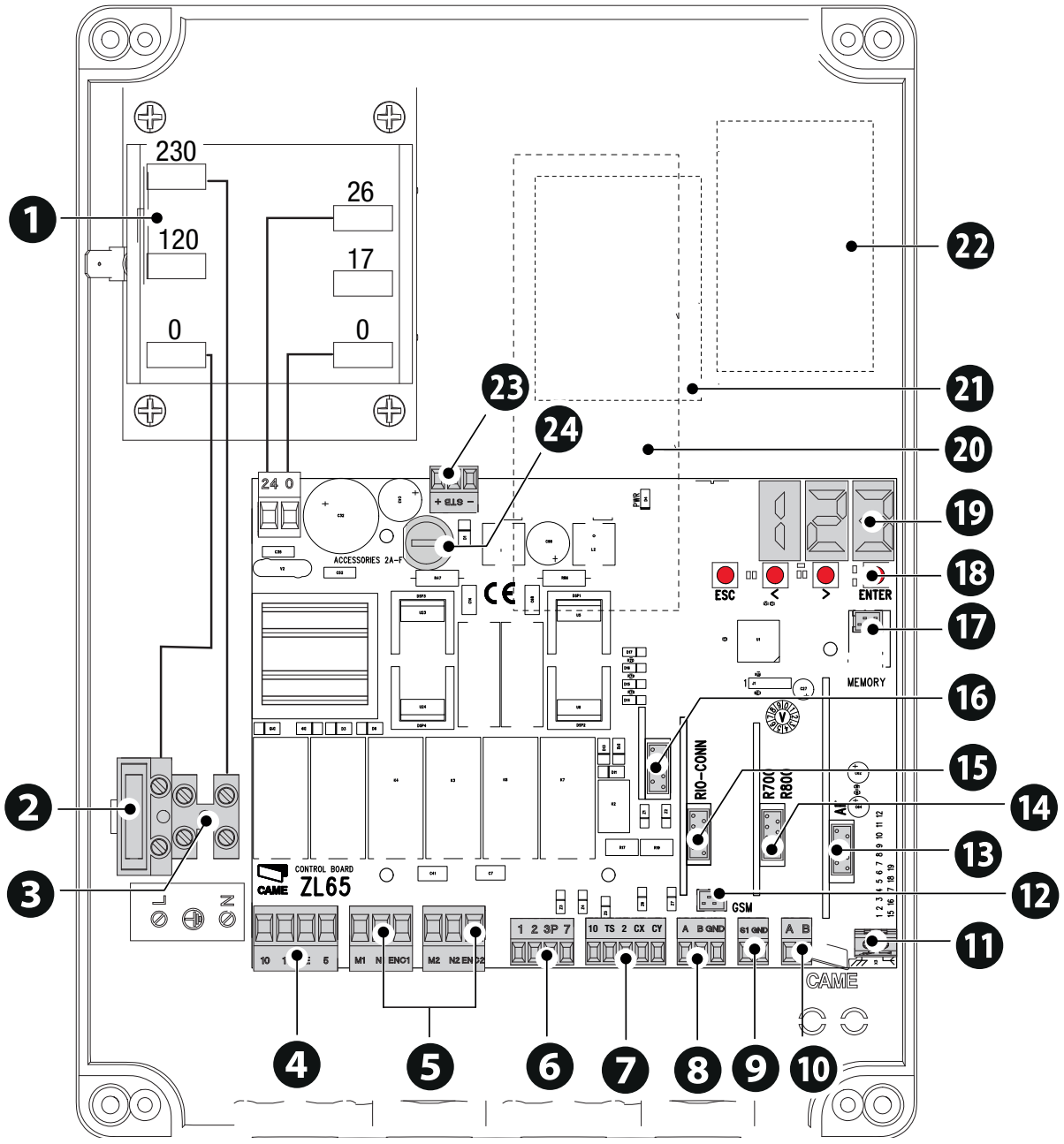
MODELS	ZL65
Power supply (V - 50/60 Hz)	230 AC
Motor power supply (V)	24 DC
Board power supply (V)	24 AC
Standby consumption (W)	7
Standby consumption with the RGP1 (W) module	0,5
Power (W)	300
Colour	RAL 7035
Operating temperature (°C)	-20 ÷ +55
Operating time (s)	180
Duty cycle	HEAVY-DUTY SERVICE
Protection rating (IP)	54
Insulation class	II

Fuse table

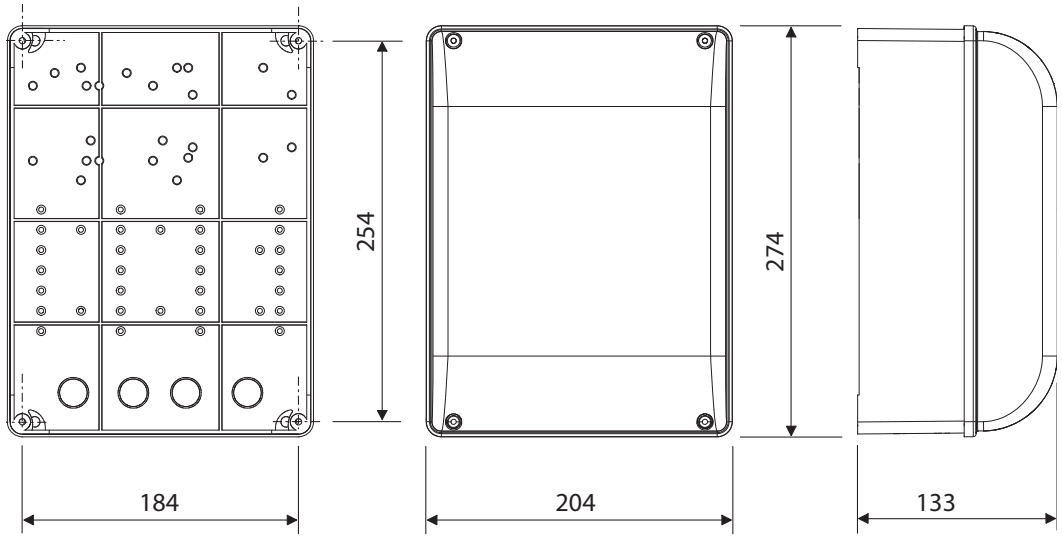
MODELS	ZL65
Line fuse	2 A F
Accessory fuse	2 A F

Description of parts

❶ Transformer
❷ Line fuse
❸ Power supply terminal board
❹ Terminal board for connecting the signalling devices
❺ Terminal boards for gearmotors with encoder
❻ Terminal board for connecting control devices
❼ Terminal board for connecting the safety devices
❽ Terminal board for CRP connection
❾ Terminal board for connecting the transponder selector switch
❿ Terminal board for connecting the keypad selector
⓫ Terminal board for connecting the antenna
⓬ Connector for the UR042 module
⓭ Connector for plug-in radio frequency card (AF)
⓮ Connector for the R700 or R800 decoding card
⓯ RIO CONN card connector
⓰ RSE card connector
⓱ Memory Roll card connector
⓲ Programming buttons
⓳ Display
⓴ Housing for UR042 module
㉑ Housing for the RGP1 module
㉒ Housing for the RLB card
㉓ Terminal board for connecting the RGP1 module
㉔ Accessories fuse



Size



Cable types and minimum thicknesses

Cable length (m)	up to 20	from 20 to 30
Power supply 230 V AC	3G x 1.5 mm^2	3G x 2.5 mm^2
24 V AC/DC flashing beacon	2 x 0.5 mm^2	2 x 0.5 mm^2
TX Photocells	2 x 0.5 mm^2	2 x 0.5 mm^2
RX photocells	4 x 0.5 mm^2	4 x 0.5 mm^2
12 V DC electric lock	2 x 1 mm^2	2 x 1.5 mm^2
Command and control devices	*no. x 0.5 mm^2	*no. x 0.5 mm^2

*** no. = see product assembly instructions**

Warning: the cable cross-section is indicative and varies according to the motor power and cable length.

When operating at 230 V and outdoors, use H05RN-F cables that are IEC 60245 (IEC 57) compliant; when indoors, use H05VV-F cables that are IEC 60227 (IEC 53) compliant; For power supplies up to 48 V, use FROR 20-22 II cables compliant with standard EN 50267-2-1 (CEI).

To connect the antenna, use RG58 cable (up to 5 m).

To connect to the CRP, use a UTP CAT5 cable (up to 1,000 m long).

If the cable lengths differ from those specified in the table, define the cable cross-sections according to the actual power draw of the connected devices and in line with regulation CEI EN 60204-1.

For multiple, sequential loads along the same line, recalculate the values in the table according to the actual power draw and distances. For information on connecting products not covered in this manual, please see the documentation accompanying the products themselves.

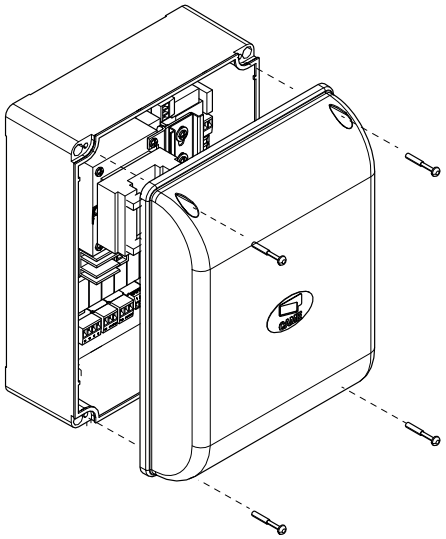
To connect the encoder, use a FROHE 300/500 V shielded cable (3 x 0.5 mm^2).

Preparing the control panel

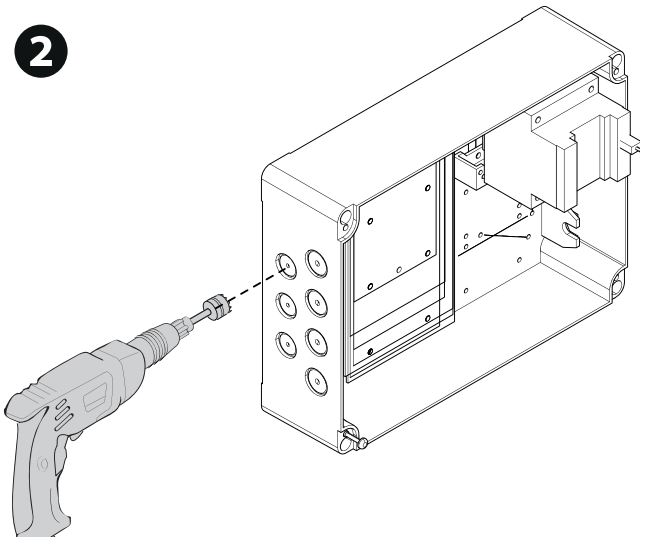
❶ Separate the parts of the control panel.

❷ Drill the pre-marked holes. The diameter of the holes is 20 mm.

❶



❷



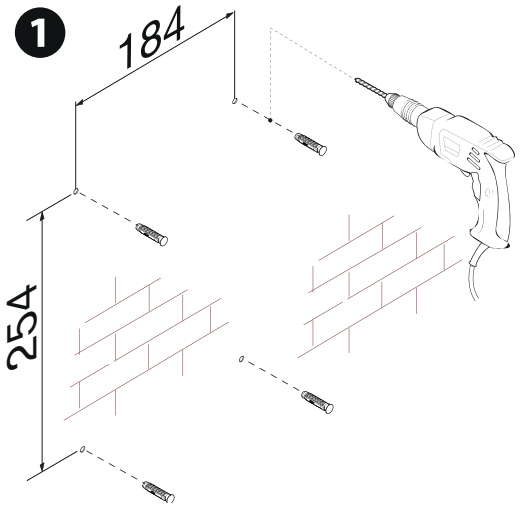
Fastening the control panel

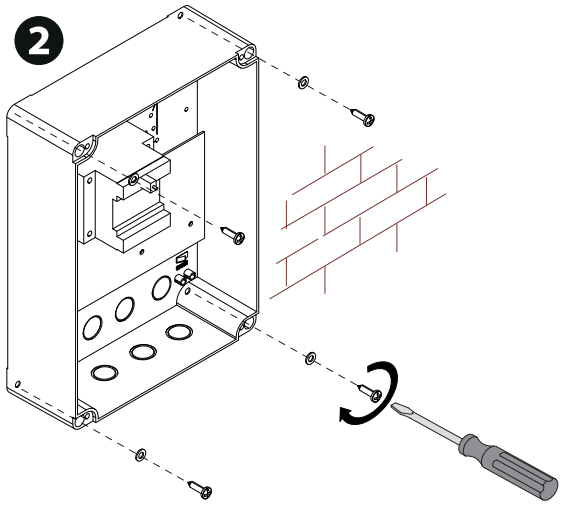
❶ Drill the fixing points in the control panel in a protected area.

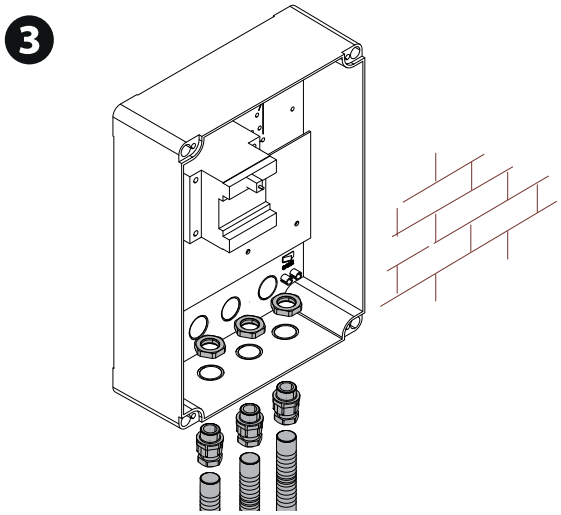
❷ Fasten the base using screws and plugs.

📖 **Use Phillips round head screws (maximum diameter 6 mm).**

❸ Insert the cable gland with the corrugated tubes for threading the electrical cables





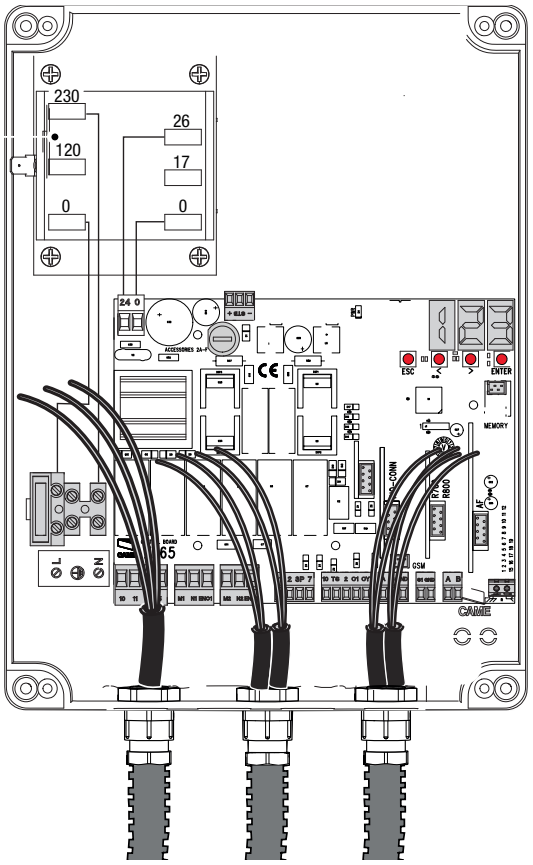


ELECTRICAL CONNECTIONS

Preparing the electrical cables

📖 Connect all wires and cables in compliance with the law.

📖 Use cable glands to connect the devices to the control panel. One of these must be used exclusively for the power supply cable.



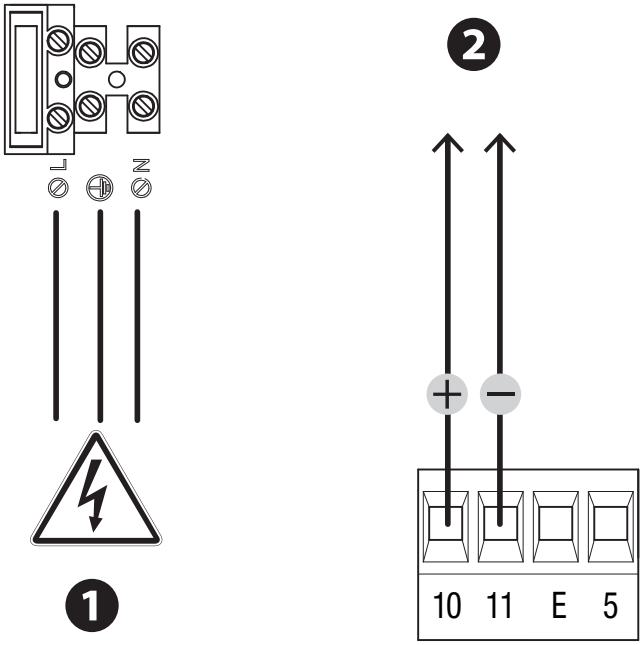
Power supply

❶ Connecting to the mains (230/120 V AC - 50/60 Hz)

❷ Power supply output for accessories

The output normally delivers 24 V AC.

The output delivers 24 V DC when the batteries start operating, if they are installed.



Maximum capacity of contacts

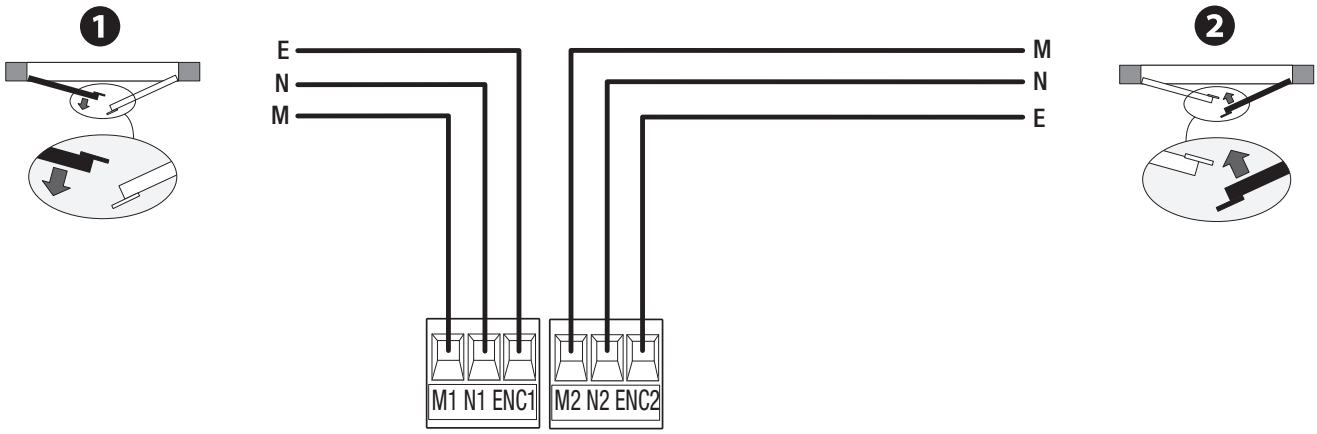
Device	Output	Power supply (V)	Power (W)
Accessories	10 - 11	24 AC/DC	25
Flashing beacon	10 - E	24 AC/DC	25
Operator status warning light	10 - 5	24 AC/DC	3

The sum of the power draw for the connected accessories must not exceed 50 W.

Gear motor with encoder

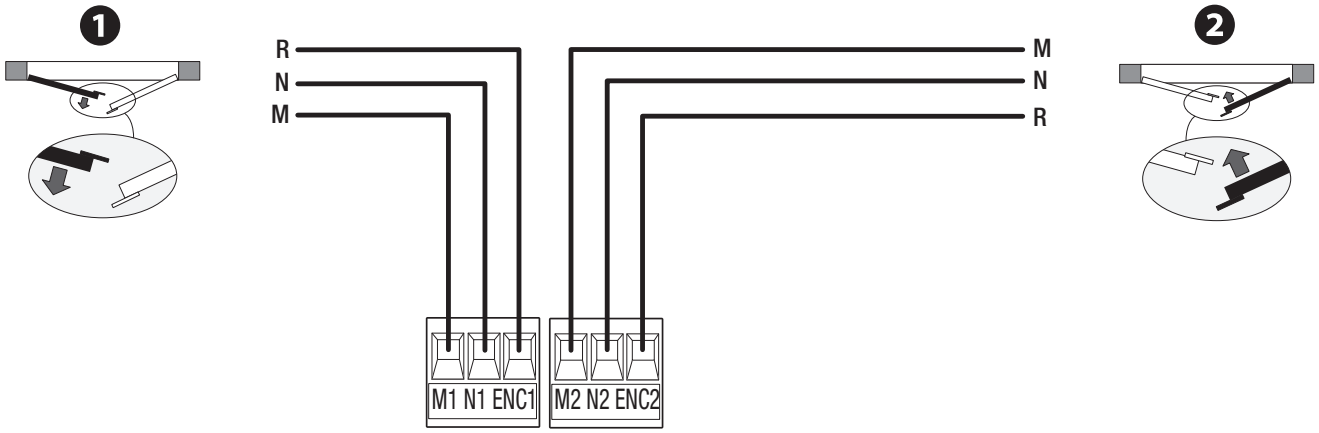
❶ Gearmotor delayed while opening

❷ Gearmotor delayed while closing



Gearmotor without encoder

❶ Gearmotor delayed while opening
❷ Gearmotor delayed while closing



Command and control devices

❶ STOP button (NC contact)

Stop the gate and exclude 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)

PARTIAL OPENING function
PEDESTRIAN OPENING function
OPEN ONLY function

📖 **See function [F8] command 2-3P.**

❸ Control device (NO contact)

OPEN-CLOSE function
OPEN-STOP-CLOSE-STOP function
OPEN ONLY function
CLOSE ONLY function

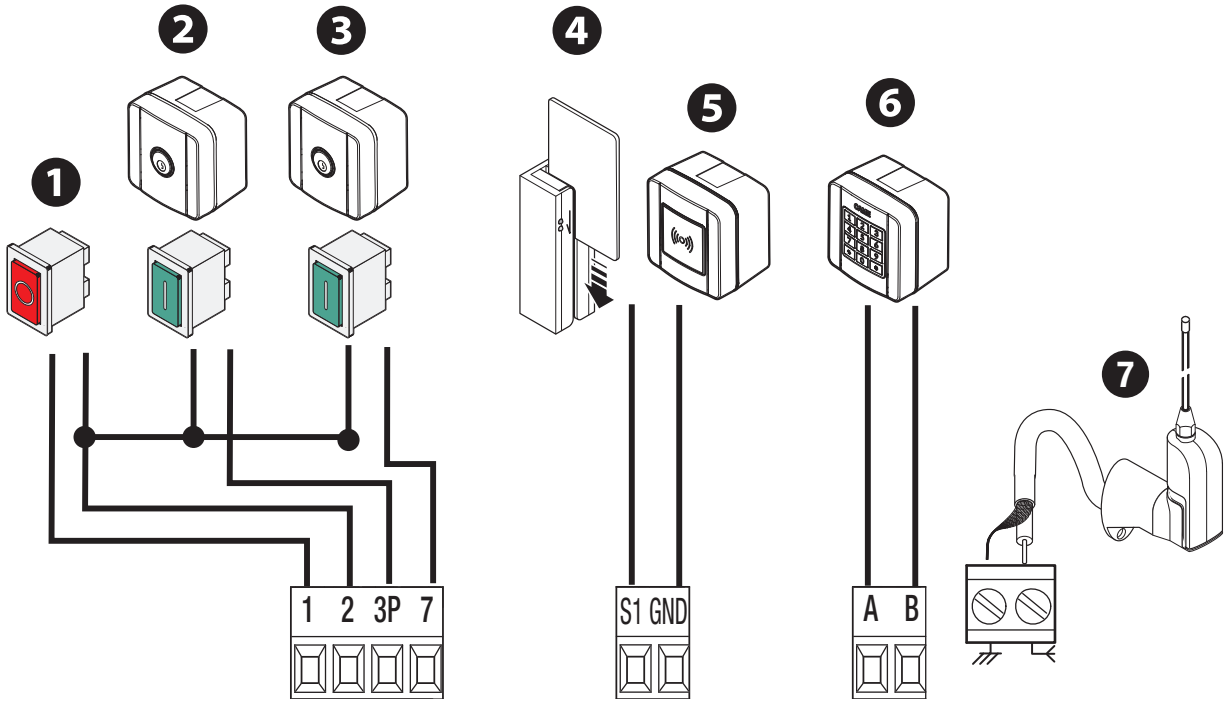
📖 **See function [F7] command 2-7.**

❹ Card reader

❺ Transponder selector switch

❻ Keypad selector

❼ Antenna with RG58 cable



Signalling devices

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

❶ Flashing beacon

It flashes when the operator opens and closes.

📖 **See function [F18] additional light.**

❷ Additional light

It increases the light in the manoeuvring area.

📖 **See function [F18] additional light.**

❸ Operator status warning light

It notifies the user of the operator status.

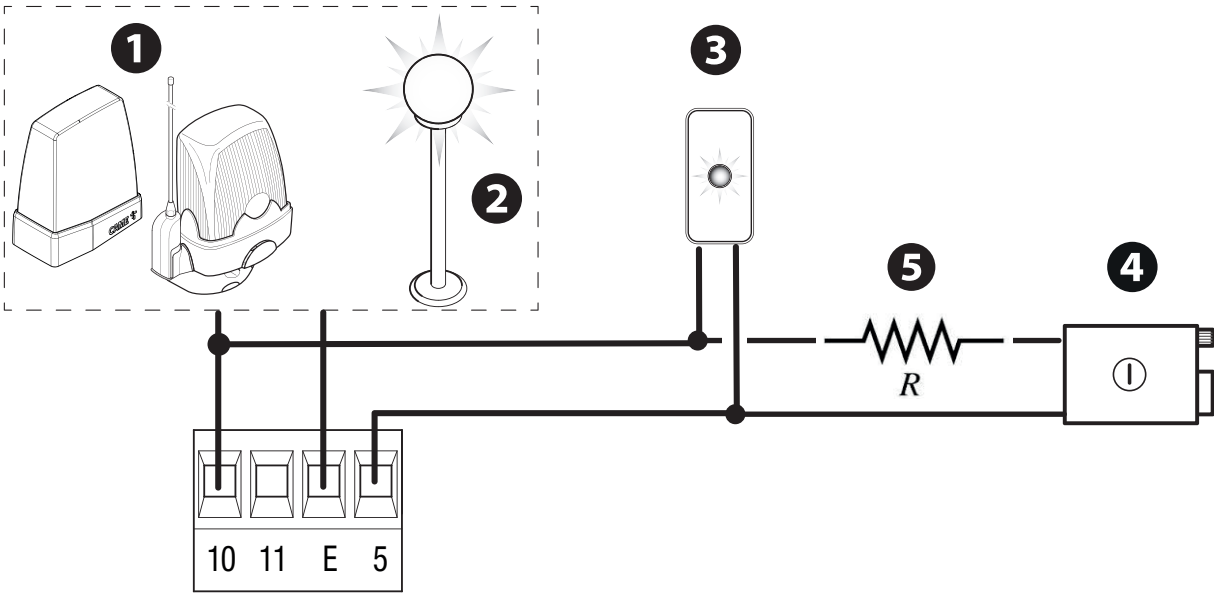
📖 **See function [F10] open warning light or enable electric lock.**

❹ Connection for the 12 V AC electric lock - 15 W max.

📖 **See function [F10] open warning light or enable electric lock.**

📖 **Replace the 2 A accessories fuse with a 3.15 A fuse.**

❺ Resistance 6.8 Ω - 7 W



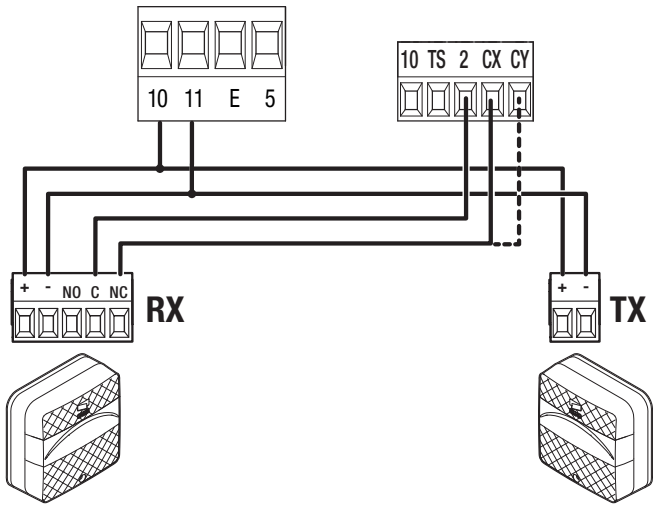
Safety devices

During programming, configure the type of action that must be performed by the device connected to the input.
Connect the safety devices to the CX and/or CY inputs.

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

DELTA photocells

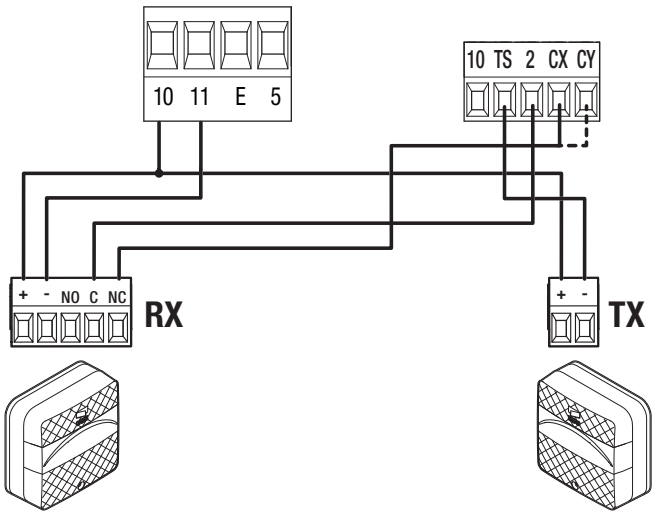
Standard connection



DELTA photocells

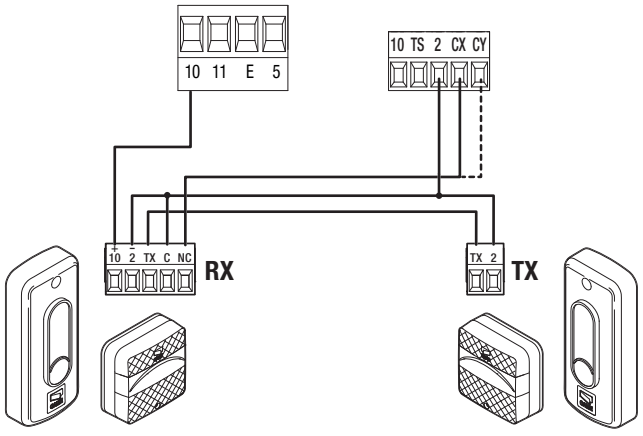
Connection with safety test

See function [F5] Safety devices test.



DIR / DELTA-S photocells

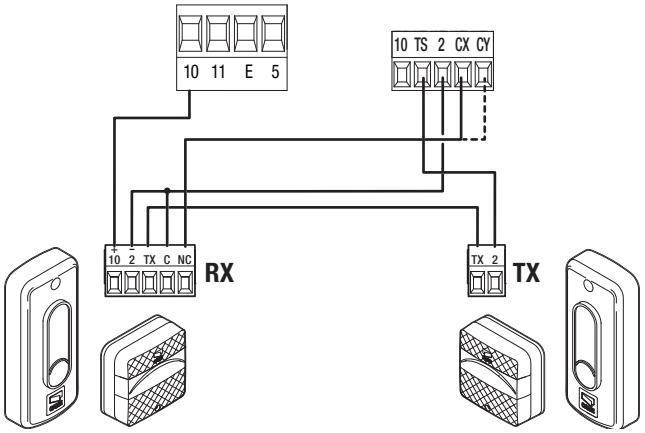
Standard connection



DIR / DELTA-S photocells

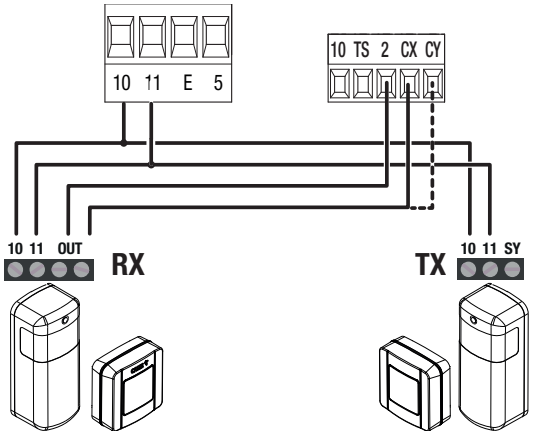
Connection with safety test

See function [F5] Safety devices test.



DXR/DLX photocells

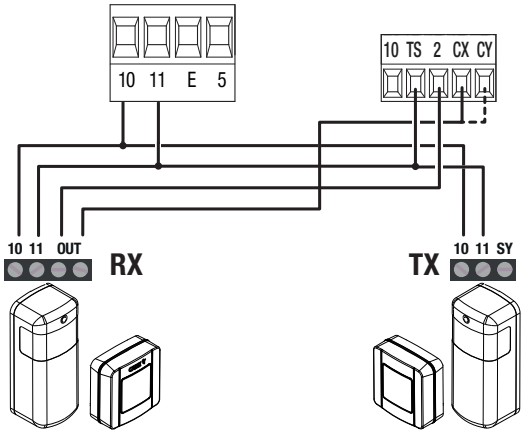
Standard connection



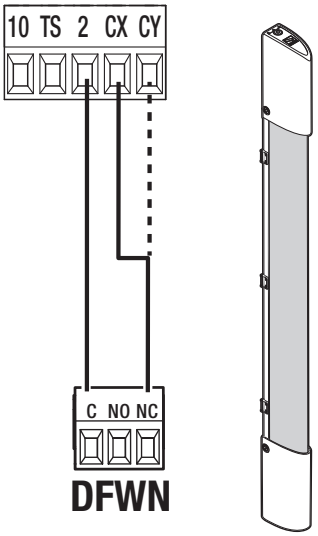
DXR/DLX photocells

Connection with safety test

📖 See function [F5] Safety devices test.

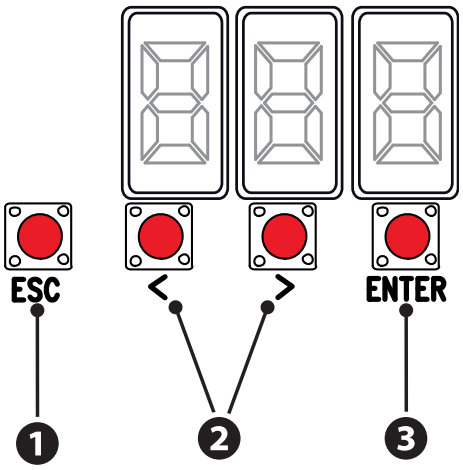


DFWN sensitive edge



PROGRAMMING

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

📖 **During movement, outside the menu, the ESC key stops the gate and the <> keys open and close the gate.**

Getting started

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

Make sure that there are no obstacles in the way.

Start programming with the functions indicated below.

A1 Motor type

F46 Number of motors

A3 Travel calibration

⚠ **Complete programming and check the warning, safety and protection devices, and the manual release, are working properly.**

📖 **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.**

Functions menu

Total stop

Stop the gate and exclude automatic closing. Use a control device to resume movement.

F1	**Total stop**	OFF (Default) ON

CX input

Associate a function with the CX input.

📖 **The parameter [C3] appears only if the [Automatic closing] function is active**

F2	**CX input**	OFF (Default) C1 = Reopen while closing (photocells) C2 = Reclose while opening (photocells) C3 = Partial stop Only with [Automatic close] activated. C4 = Obstacle standby (photocells) C7 = Reopen while closing (sensitive edges) C8 = Reclose while opening (sensitive edges)

CY input

Associate a function with the CY input.

📖 **The parameter [C3] appears only if the [Automatic closing] function is active**

F3	**CY input**	OFF (Default) C1 = Reopen while closing (photocells) C2 = Reclose while opening (photocells) C3 = Partial stop Only with [Automatic close] activated. C4 = Obstacle standby (photocells) C7 = Reopen while closing (sensitive edges) C8 = Reclose while opening (sensitive edges)

Safety devices test

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

📖 **The safety devices test function is always active for wireless safety devices.**

F5	**Safety devices test**	OFF (Default) 1 = CX 2 = CY 4 = 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**	OFF (Default) ON

Command 2-7

Associate a command with the device connected to 2-7.

F7	**Command 2-7**	0 = Step-by-step (default) 1 = Sequential 2 = Open 3 = Close

Command 2-3P

Associate a command to the connected device on 2-3P.

F8	**Command 2-3P**	0 = Pedestrian opening (Default) Complete opening of M2 only. 1 = Partial opening Partial opening of M2 only. 📖 **The M2 opening degree is set as a percentage, with function [F36] Partial opening adjustment.** 2 = Open

Obstruction detection with motor idle

With the function active, the gate remains idle if the safety devices detect an obstacle. The function is active when the gate is closed, open or after a complete stop.

F9	**Obstruction detection with motor idle**	OFF (Default) ON

Open warning light or enable electric lock

It signals the gate status or enables the electric lock. Device connected the 10-5 output.

F10	**Open warning light or enable electric lock**	0 = Warning light on (default) - The warning light stays on when the gate is moving or open. 1 = Warning light flashing - The warning light flashes every half second when the gate is opening and stays on when the gate is open. The light flashes every second when the gate is closing, and remains off when the gate is closed. 2 = The output enables an electric lock.

Encoder

Manage operator slowdowns, obstacle detection and sensitivity.

F11	**Encoder**	ON (Default) OFF 📖 **If parameter 5 is selected on A1, the encoder is set to OFF by default.**

Soft start

Set a slowdown of a few seconds after each opening and closing command.

F12	**Soft start**	OFF (Default) ON

Closing thrust

When the leaves reach the closing limit-switch, the operator thrusts them towards the strike plate for a second.

F13	**Closing thrust**	OFF (Default) 1 = Minimum thrust 2 = Medium thrust 3 = Maximum thrust

Sensor type

Set the type of control device.

F14	**Sensor type**	0 = Transponder selector or magnetic card reader 1 = Keypad selector (default)

Thrust

Before every opening or closing manoeuvre, the leaves thrust inwards to release the electric lock.

F16	**Thrust**	OFF (Default) ON

Additional light

Choose the operating mode of the lighting device connected to output 10-E.

F18	**Additional light**	0 =Flashing beacon (Default) 1 = Cycle light The lamp stays on during the manoeuvre. 📖 **Parameter [1] appears only if an automatic closing time is set.**

Automatic closure

Set the time before automatic closure is activated, once the opening travel end point has been reached or once the photocells have caused a partial stop [C3].

📖 **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 close**	OFF (Default) From 1 to 180 seconds

Automatic closing after either partial or pedestrian opening.

Set the time before automatic closure is activated, after a partial opening command has been performed or after the photocells have caused a partial stop [C3].

📖 **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.**

F20	**Automatic closing after either partial or pedestrian opening.**	OFF 1 to 180 seconds (Default 10)

Pre-flashing time

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

F21	**Pre-flashing time**	OFF (Default) 1 to 10 seconds

Operating time

Set the gearmotor working time during opening and closing.

F22	**Operating time**	5 to 180 seconds (Default 120)

M1 opening delay time

It adjusts the delay with which the first leaf must start the opening manoeuvre with respect to the second leaf.

F23	**M1 opening delay time**	0 to 10 seconds (Default 2)

M2 closing delay time

Adjust the delayed opening of the second leaf compared to the first.

F24	**M2 closing delay time**	0 to 25 seconds (Default 5)

Thrust time

Adjust the gearmotor closing thrust time after an opening or closing command.

F26	**Thrust time**	1 to 2 seconds (Default 1)

Electric lock time

Adjust the electric lock release time after an opening or closing command.

F27	**Electric lock time**	1 to 4 seconds (Default 1)

Gate travel speed

Set the travel speed (percentage of maximum speed).

F28	**Gate travel speed**	40% to 100% (Default 100%)

M1 slowdown speed

Set the slowdown speed (percentage of maximum speed).

F30	**M1 slowdown speed**	15% to 60% (Default 50%)

Calibration speed

Set the speed during travel self-learning (percentage of maximum speed).

F33	**Calibration speed**	20% to 60% (Default 50%)

Travel sensitivity

Adjust the obstruction detection sensitivity during boom travel (percent).

F34	**Travel sensitivity**	10% to 100% (Default 100%) 📖 **10% = minimum thrust and high obstruction sensitivity** **100% = maximum thrust and low obstruction sensitivity**

Slowdown sensitivity

Adjust the obstruction detection sensitivity during slowdown (percent).

F35	**Slowdown sensitivity**	10% to 100% (Default 100%) 📖 **10% = minimum thrust and high obstruction sensitivity** **100% = maximum thrust and low obstruction sensitivity**

Adjusting the partial opening

📖 **This function does not appear if parameter 5 is selected on A1.**

In single-leaf gates, it determines the leaf partial opening percentage with respect to the total travel.
In two-leaf gates, it determines the partial opening percentage of the leaf that moves first with respect to the total travel.

F36	**Adjusting the partial opening**	10% to 80% (Default 40%)

Opening slowdown point for M1

📖 **This function does not appear if parameter 5 is selected on A1.**

Set the opening slowdown starting point for M1 (percentage of the total travel).

F37	**Opening slowdown point for M1**	1% to 60% (Default 25%)

M1 closing slowdown point

📖 **This function does not appear if parameter 5 is selected on A1.**

Set the closing slowdown starting point for M1 (percentage of the total travel).

F38	**M1 closing slowdown point**	1% to 60% (Default 25%)

M1 opening approach point

📖 **This function does not appear if parameter 5 is selected on A1.**

Set the opening approach starting point for M1 (percentage of the total travel).

F39	**M1 opening approach point**	1% to 10% (Default 10%)

M1 closing approach point

📖 **This function does not appear if parameter 5 is selected on A1.**

Set the closing approach starting point for M1 (percentage of the total travel).

F40	**M1 closing approach point**	1% to 10% (Default 10%)

Opening slowdown point for M2

📖 **This function does not appear if parameter 5 is selected on A1.**

Set the opening slowdown starting point for M2 (percentage of the total travel).

F41	**M2 opening slowdown point**	1% to 60% (Default 25%)

M2 closing slowdown point

📖 **This function does not appear if parameter 5 is selected on A1.**

Set the closing slowdown starting point for M2 (percentage of the total travel).

F42	**M2 closing slowdown point**	1% to 60% (Default 25%)

Opening approach point for M2

📖 **This function does not appear if parameter 5 is selected on A1.**

Set the opening approach starting point for M2 (percentage of the total travel).

F43	**M2 opening approach point**	1% to 10% (Default 10%)

Closing approach point for M2

📖 **This function does not appear if parameter 5 is selected on A1.**

Set the closing approach starting point for M2 (percentage of the total travel).

F44	**M2 closing approach point**	1% to 10% (Default 10%)

Number of motors

Set the number of motors that control the gate.

📖 **Value 1 indicates that the M2 motor is being used.**

F46	**Number of motors**	2 (Default) 1

Managing the serial connection

Enable CRP operation.

F49	**Managing the serial connection**	OFF 3 = CRP (Default)

Save data

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

📖 **The function is displayed only when a USB stick is inserted into the USB port or when a memory roll card is inserted into the control board.**

F50	**Save data**	OFF ON (Run operation)

Read data

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

📖 **The function is displayed only when a USB stick is inserted into the USB port or when a memory roll card is inserted into the control board.**

F51	**Read data**	OFF ON (Run operation)

Peripheral number

Assign a unique identification code (CRP address) to the control board. It is used where there are multiple operators connected to the same communication BUS with CRP protocol.

F56	**Peripheral number**	from 1 to 255

Communication speed

Set the communication speed of the remote connection system.

F63	**Communication 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

RIO ED T1

Associate one of the available functions with a wireless safety device.
The function only appears if there is an interface board for wireless devices.

F65	**RIO ED T1**	OFF (Default) P0 = It stops the gate and excludes automatic closing. Use a control device to resume movement. P7 = Reopen while closing. P8 = Reclose while opening.

RIO ED T2

Associate one of the available functions with a wireless safety device.
The function only appears if there is an interface board for wireless devices.

F66	**RIO ED T2**	OFF (Default) P0 = It stops the gate and excludes automatic closing. Use a control device to resume movement. P7 = Reopen while closing. P8 = Reclose while opening.

RIO PH T1

Associate one of the available functions with a wireless safety device.
The function only appears if there is an interface board for wireless devices.

F67	**RIO PH T1**	OFF (Default) P1 = Reopen while closing. P2 = Reclose while opening. P3 = Partial stop. Only with [Automatic close] activated. P4 = Obstacle standby.

RIO PH T2

Associate one of the available functions with a wireless safety device.
The function only appears if there is an interface board for wireless devices.

F68	RIO PH T2	OFF (Default) P1 = Reopen while closing. P2 = Reclose while opening. P3 = Partial stop. Only with [Automatic close] activated. P4 = Obstacle standby.

Limit-switch function

Set the operation of the inputs for slowdown/end-of-travel switches.
📖 **The function only appears for motors configured for this purpose.**

F72	Limit-switch function	OFF = Deactivated 2 = Slowdown 3 = Limit switch in open, slowdown in close (Default)

New user

Register up to a maximum of 250 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 2 = Sequential 3 = Open 4 = Partial opening Choose the function to be assigned to the user. Press ENTER to confirm. Send the code from the control device. Repeat the procedure to add other users.

📖 **Download the LIST OF REGISTERED USERS form from the docs.came.com portal by typing in L20180423.**

Remove user

Remove one of the registered users.

U2	**Remove user**	OFF (Default) ON Use the arrows to choose the number associated with the user you want to remove. No. 1 > 250 Alternatively, the control device associated with the user you want to remove can be activated. Press ENTER to confirm. “CLr” will appear to confirm deletion.

Remove all

Remove all registered users.

U3	**Remove all**	OFF (Cancel operation) ON (Run operation)

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 decoding (default) 2 = Rolling code 3 = TW key block

Motor type

Set the type of gearmotor installed on M1 and M2.

A1	**Motor type**	1 = SVN20-25 2 = FA7024CB 3 = FTX20DGC 4 = ATS-AX0 5 = ATI-F7024N

Motor test

Check the gate leaves open in the right direction.

With the function active, in single-leaf gates, the > button opens the gate with the gearmotor connected to M2-N2;

With the function active, in two-leaf gates, the > button opens the gate with the gearmotor connected to M2-N2; the < button opens the gate with the gearmotor connected to M1-N1.

📖 **If the leaf does not move in the correct direction, invert the motor phases.**

A2	**Motor test**	OFF (Default) ON

Travel calibration

Start the travel self-learning.

📖 **This function appears only if the [Encoder] function is active.**

A3	**Travel calibration**	OFF (Default) ON

Parameter reset

Restores the factory settings, including the travel calibration settings.

A4	**Parameter reset**	OFF (Default) ON

Manoeuvre counter

View the number of operator manoeuvres.

001 = 100 manoeuvres / 010 = 1000 manoeuvres /100 = 10000 manoeuvres / 999 = 99900 manoeuvres / CSt = maintenance job

A5	**Manoeuvre counter**	

FW version

Display the firmware version number.

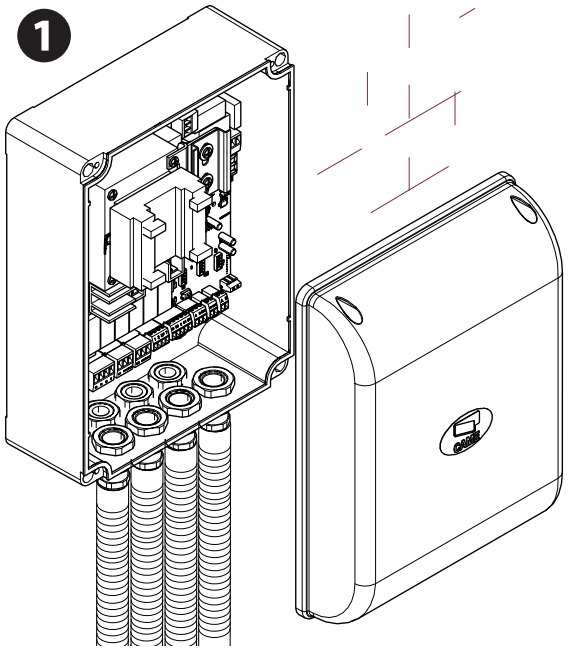
H1	**FW version**	

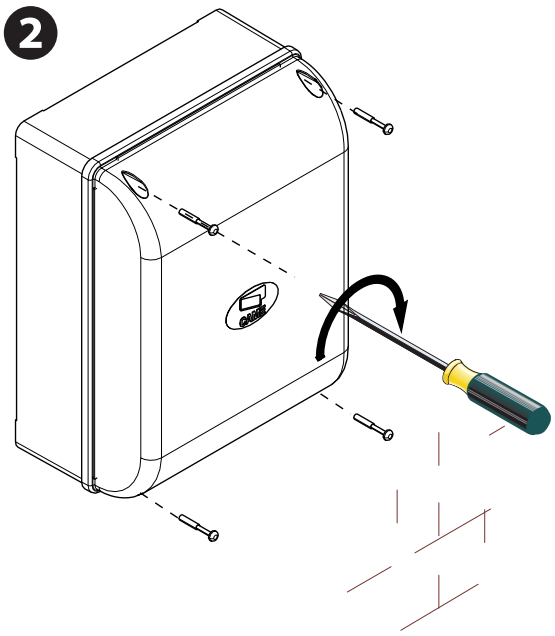
ERROR AND WARNING MESSAGES

E1	The travel calibration was interrupted to activate the STOP button.
E2	Adjustment error
E3	Encoder failure error
E4	Service test failure error
E7	Operating time error
E9	Obstacle detected during closing
E10	Obstacle detected during opening
E11	Maximum number of obstacles
E14	Serial communication error
E15	Incompatible remote control
E17	Wireless system communication error
E18	Wireless system not configured error
C0	Wired contact 1-2 (NC) is open
C1, C2, C3, C4	The wired photocell contacts (NC) are open.
C7, C8	The wired sensitive-edge contacts (NC) are open.
P0	The wireless radio stop contact (NC) is open.
P1, P2, P3, P4	The wireless radio photocell contacts (NC) are open.
P7, P8	The wireless radio sensitive-edge contacts (NC) are open.
---	Control board has no travel auto-learning

FINAL OPERATIONS

📖 **Before closing up the casing, check that the cable inlets are sealed to stop insects getting in and to prevent damp.**





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