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1 SYMBOLS USED IN THIS MANUAL

This manual uses symbols to highlight specific texts. The functions of each symbol are explained below:

⚠ Failure to respect the safety warnings could lead to accident or injury.

📖 Important details which must be respected for correct assembly and operation.

i Additional information to help the installer.

♻ Information on care for the environment.

2 IMPORTANCE OF THIS MANUAL

⚠ Read this manual in its entirety before carrying out the installation, and obey all instructions. Failure to do so may result in a defective installation, leading to accidents and failures.

i Moreover, this manual provides valuable information which will help you to carry out installation more efficiently.

📖 This manual is an integral part of the product. Keep for future reference.

3 ENVISAGED USE

This device has been designed for installation as part of an automatic opening and closing system for swing doors and gates.

⚠ This device is not suitable for installation in inflammable or explosive environments.

⚠ Failure to install or use as indicated in this manual is inappropriate and hazardous, and could lead to accidents or failures.

⚠ The installer shall be responsible for ensuring the installation is set up for its envisaged use.

4 INSTALLER'S QUALIFICATIONS

⚠ The installation should be completed by a professional installer, complying with the following requirements:

- He/she must be capable of carrying out mechanical assemblies in doors and gates, choosing and implementing attachment systems in line with the assembly surface (metal, wood, brick, etc) and the weight and effort of the mechanism.
- He/she must be capable of carrying out simple electrical installations in line with the low voltage regulations and applicable standards.

⚠ The installation should be carried out bearing in mind standards EN 13241-1 and EN 12453.

5 AUTOMATIC OPERATION SAFETY ELEMENTS

This device complies with all current safety regulations. However, the complete system comprises, apart from the operator referred to in these instructions, other elements which should be acquired separately.

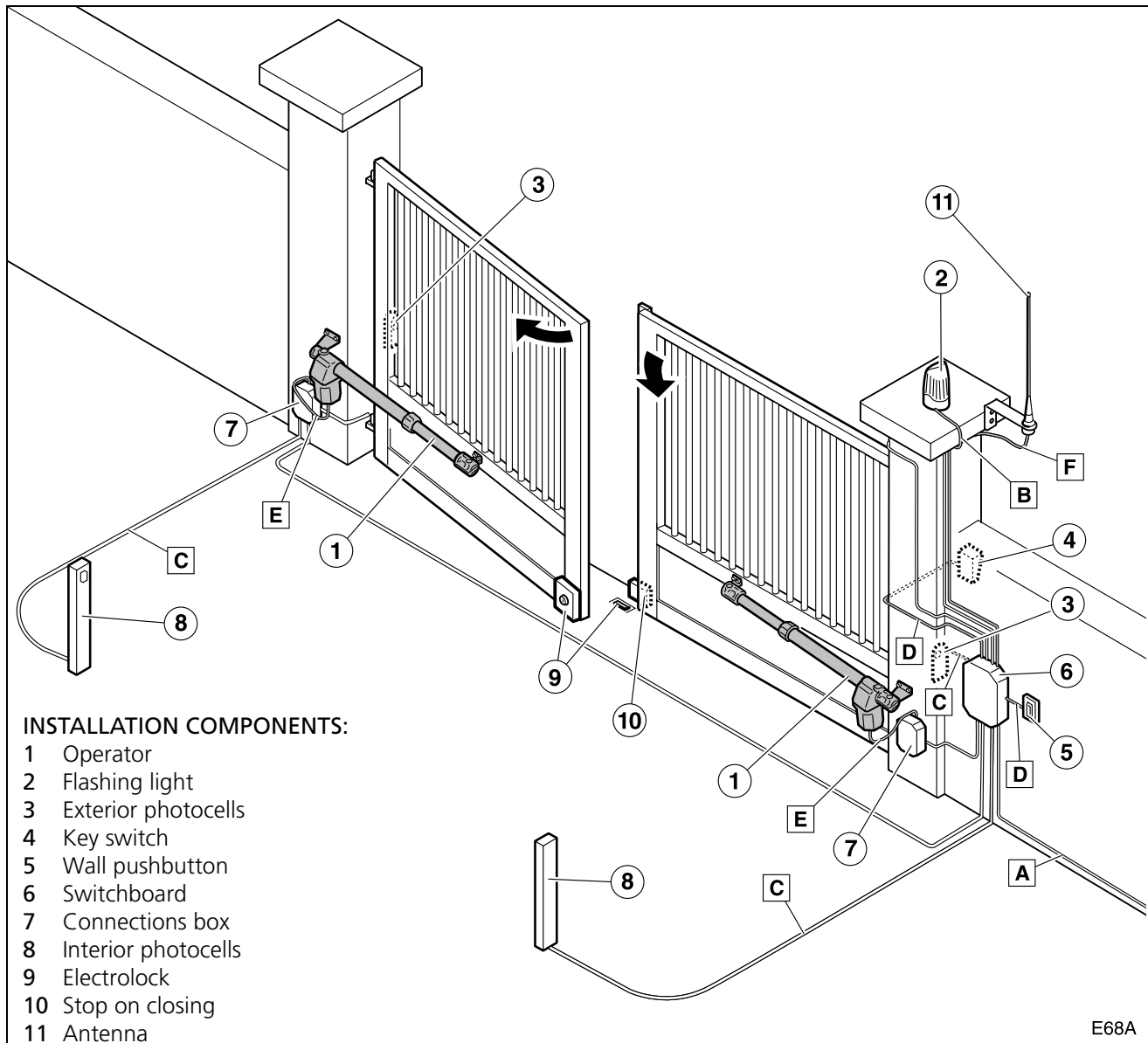
📖 The safety of the complete installation depends on all the elements installed. Install only Erreka components in order to guarantee proper operation.

⚠ Respect the instructions for all the elements positioned in the installation.

⚠ We recommend installing safety elements.

i For further details, see "Fig. 1 Elements of the complete installation" on page 27.

1 ELEMENTS OF THE COMPLETE INSTALLATION



▲ We recommend using the VIVO-M201(M) or VIVO-M101(M) switchboard for the 125/230VAC models and the VIVO-D201(M) switchboard for the 24VDC models.

ELECTRICAL CABLING:

Element	N° wires x section	Maximum length
A: Main power supply	3x1.5mm ²	30m
B: Flashing light	2x0.5mm ²	20m
C: Photocells (Tx / Rx)	2x0.5mm ² / 4x0.5mm ²	30m
D: Pushbutton or key switch	2x0.5mm ²	25m
E: Operator (125/230 VAC)	4x1mm ²	20m
E: Operator (24VDC)	2x1mm ²	8m (maximum 25m with cable 2x2.5mm ²)
F: Antenna	Coaxial cable 50Ω (RG-58/U)	5m

Fig. 1 Elements of the complete installation

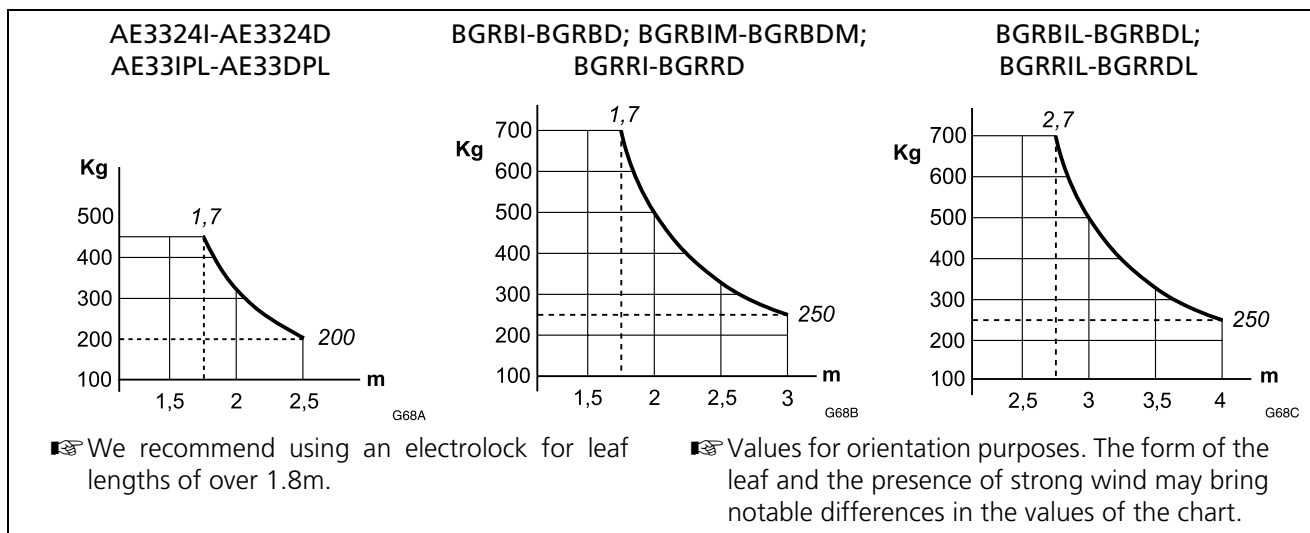
▲ The safe and correct operation of the installation is the responsibility of the installer.

☞ For greater safety, Erreka recommends installing the photocells (3) and (8).

2 OPERATOR FEATURES

Model	AE3324I AE3324D	AE33IPL AE33DPL	BGRBI BGRBD	BGRBIL BGRBDL	BGRBIM BGRBDM	BGRRI BGRRD	BGRRIIL BGRRDIL
Power supply (V/Hz)	24Vdc	220-230/ 50-60	220-230/ 50-60	220-230/ 50-60	110-125 50-60	220-230/ 50-60	220-230/ 50-60
Max absorbed current (A)	5,5	0,9	1,2	1,2	4,6	1,2	1,2
Power consumed (W)	70	180	350	350	350	350	350
Capacitor (µF)	–	6,3	8	8	25	8	8
Protection class (IP)	43	43	43	43	43	43	43
Maximum thrust (N)	1.500	1.600	2.200	2.200	1.250	2.200	2.200
Speed (rpm)	1.600	1.400	1.400	900	1.400	900	900
Spindle speed (m/s)	0,019	0,018	0,018	0,012	0,018	0,018	0,012
Stroke (mm)	300	300	300	400	300	300	400
Opening time(s)	16	17	17	33	17	17	33
Locking	Yes	Yes	Yes	Yes	Yes	No	No
Operating temperature (°C)	-25/+60	-25/+60	-25/+60	-25/+60	-25/+60	-25/+60	-25/+60
Thermal protector (°C)	–	150	150	150	150	150	150
Duty cycle (%)	80	25	35	35	25	35	35
Maximum weight of the leaf (kg) (see "Limits on Use")	200	200	250	250	250	250	250
Maximum leaf size (m) (See "Limits on use")	2,5	2,5	3	4	3	3	4

Limits on use



3 DECLARATION OF CONFORMITY

Erreka Automatismos declares that the ARES electromechanical operator has been designed for use in a machine or for assembly along with other elements in order to form a machine in line with Directive 89/392 EEC and successive modifications.

The ARES electromechanical operator allows us to carry out installations in line with the standards EN 13241-1 and EN 12453.

The ARES electromechanical operator complies with safety legislation in line with the following directives and standards:

- 73/23 EEC and successive modification 93/68 EEC
- 89/366 EEC and successive modifications 92/31 EEC and 93/68 EEC
- UNE-EN 60335-1

1 TOOLS AND MATERIALS



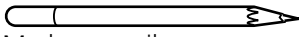
Electrician's screwdriver



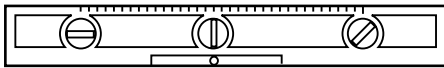
Spanners (in accordance with the attachment screws used)



Allen key 6mm



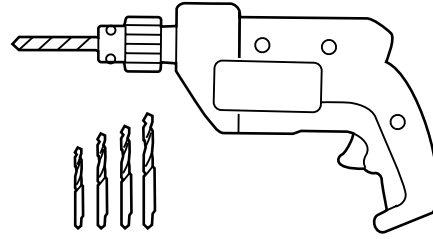
Marker pencil



Level



Tape measure



Electric drill and broaches

▲ Use the electrical drill in line with the use instructions.



Wall-side and gate-side support attachment screws



2 INITIAL CONDITIONS AND CHECKS

Initial conditions of the gate

- ▲ Check that the size of the gate is within the admissible range of the operator (see the technical characteristics of the operator).**
- ▲ If the gate to be automated has a passage gate, use a safety device to prevent the operator from operating with the passage gate open.**

- ☞ The gate must be easy to manipulate manually, namely:
 - It must be balanced, in order to ensure the effort made by the motor is minimum.
 - There should be no stiffness throughout its travel.

▲ Do not install the operator in a gate which does not work correctly in manual operation, as this may lead to accidents. Repair the gate before installing.

Environmental conditions

▲ This device is not suitable for installation in inflammable or explosive environments.

▲ Check that the admissible environmental temperature range for the operator is suitable for the location.

Electrical power supply installation

▲ The electrical connections shall be made in line with the instructions in the control panel manual.

☞ The electrical cable section is indicated in: "Fig. 1 Elements of the complete installation" on page 27.

3 UNPACKING

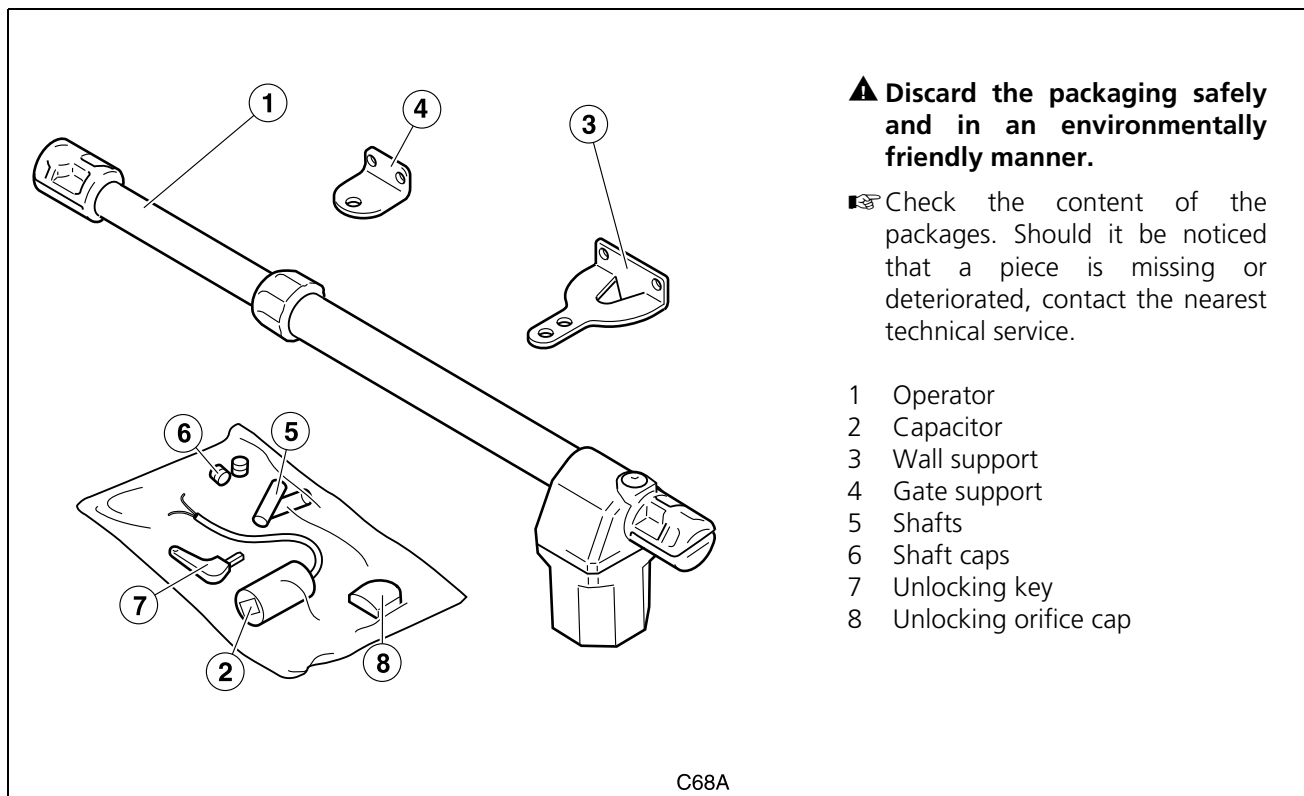


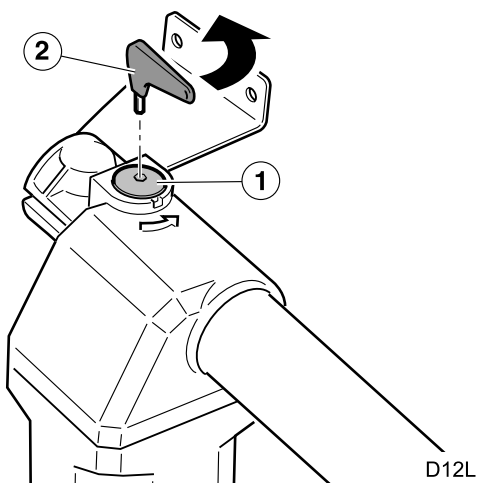
Fig. 1 Content and spare parts

4 MANUAL OPERATION

☞ In the event of need, the gate may be operated manually, acting first on the unlocking mechanism.

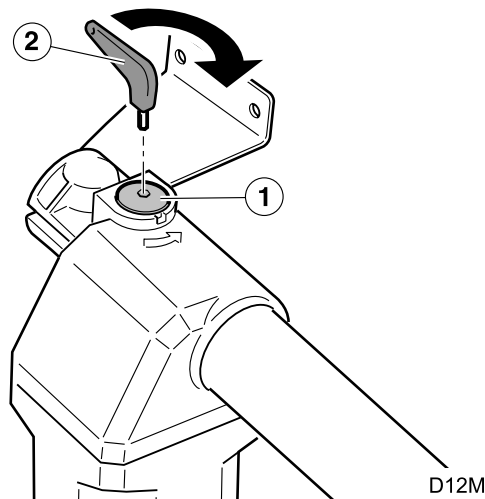
Unlocking (manual operation)

- 1 Introduce the key (2) in the unlocking screw (1).
- 2 Turn the unlocking key 90° in the direction of the arrow, until it reaches the stopper. The operator is unlocked and the gate can now be moved manually.



Locking (motorised operation)

- 1 Introduce the key (2) in the unlocking screw (1).
- 2 Turn the unlocking key 90° in the opposite direction to the arrow, until it reaches the stopper. The operator is locked (the gate is interlocked).

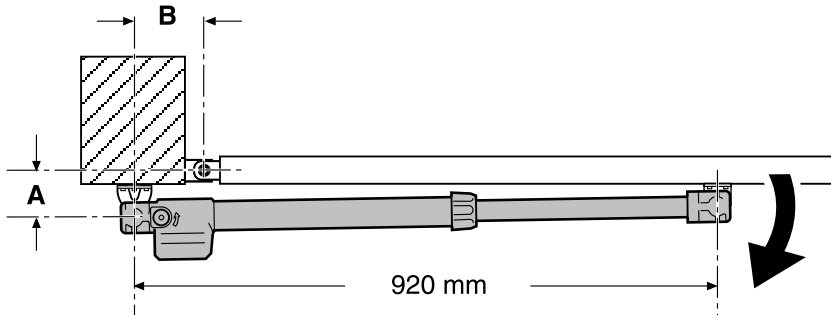


5 OPERATOR INSTALLATION

Assembly positions and levels

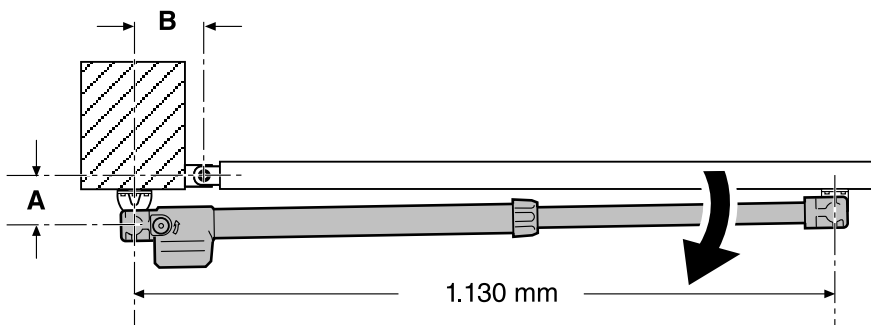
Levels A and B determine the opening angle C.

Short operator (run 300mm), inward opening



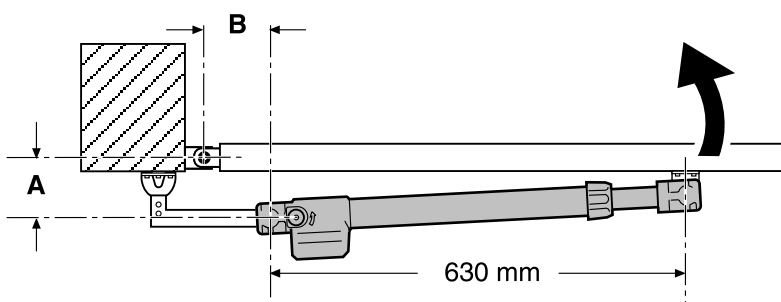
A (cm)	B (cm)	C (°)
140	140	95
120	160	120

Long operator (run 400mm), inward opening



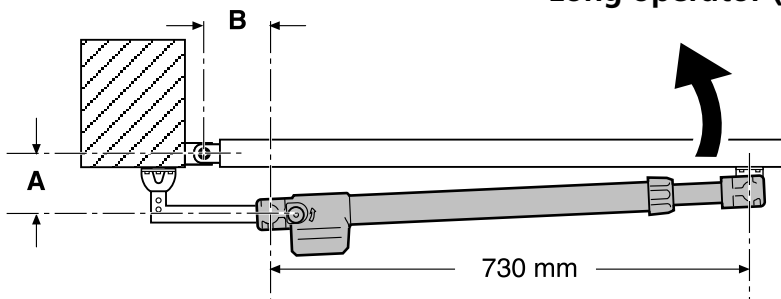
A (cm)	B (cm)	C (°)
190	190	95
135	185	120

Short operator (run 300mm), outward opening



A (cm)	B (cm)	C (°)
140	140	95
120	160	120

Long operator (run 400mm), outward opening



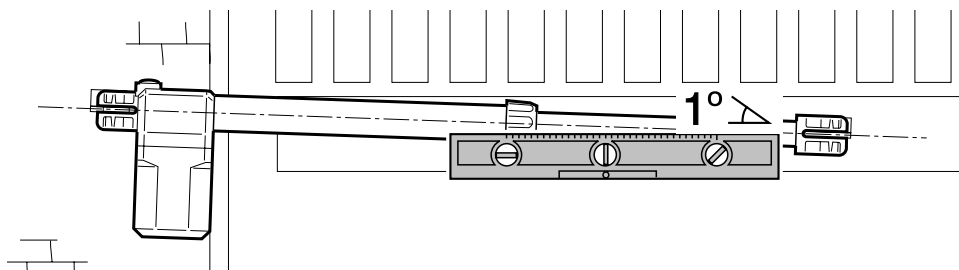
A (cm)	B (cm)	C (°)
190	190	95
135	185	120

M68A



Levelling

- ▣ The supports should be positioned so as the operator forms an angle of 1° with regards to the horizontal, remaining lower on the gate support side.

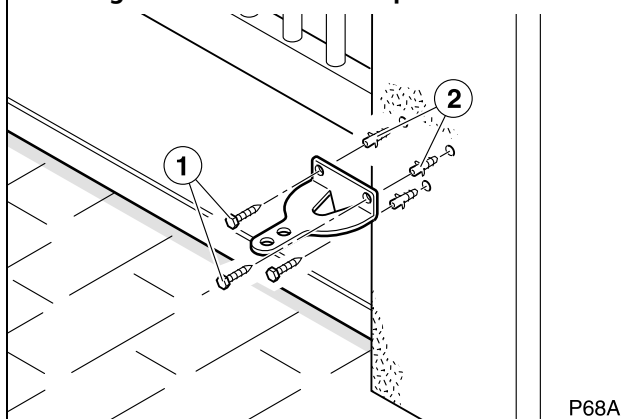


M68I

Mount the wall support

- ▣ Respect the levels indicated in "Assembly positions and levels" on page 31.

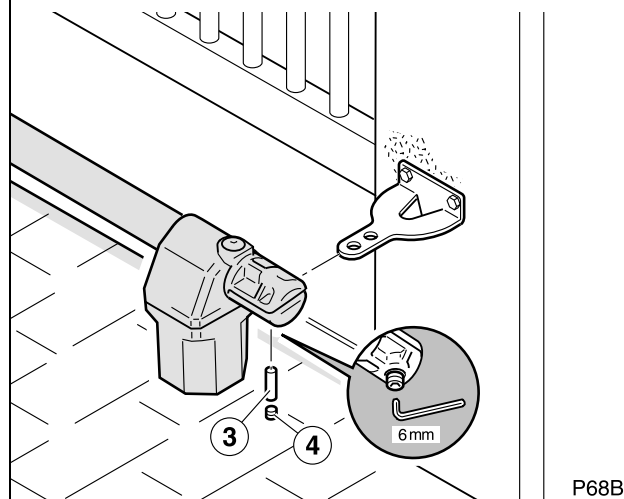
- ⚠ The screws (1) and plugs (2) are not supplied. Use screws and plugs which are suitable for the place of attachment and the weight and effort of the operator.



P68A

Mount the operator on the wall support

- ▣ Introduce the shaft (3) and secure with the cap (4), using a 6 mm Allen key.

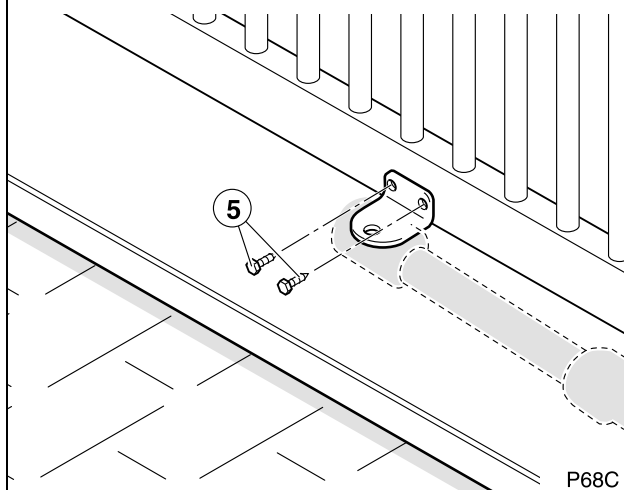


P68B

Position the gate support

- ▣ Respect the levels indicated in "Assembly positions and levels" on page 31 and the slant of the operator (see "Levelling" on page 32).

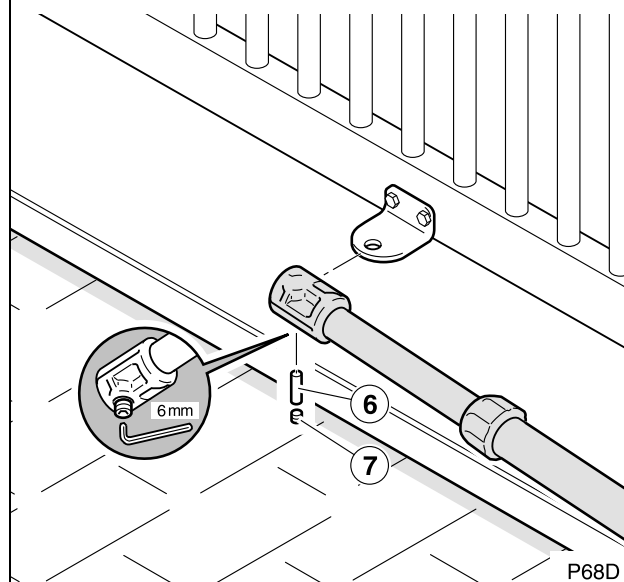
- ⚠ The screws (5) are not supplied. Use screws which are suitable for the place of attachment and the effort required.



P68C

Mount the operator on the gate support

- ▣ Introduce the shaft (6) and secure with the cap (7), using a 6 mm allen key.



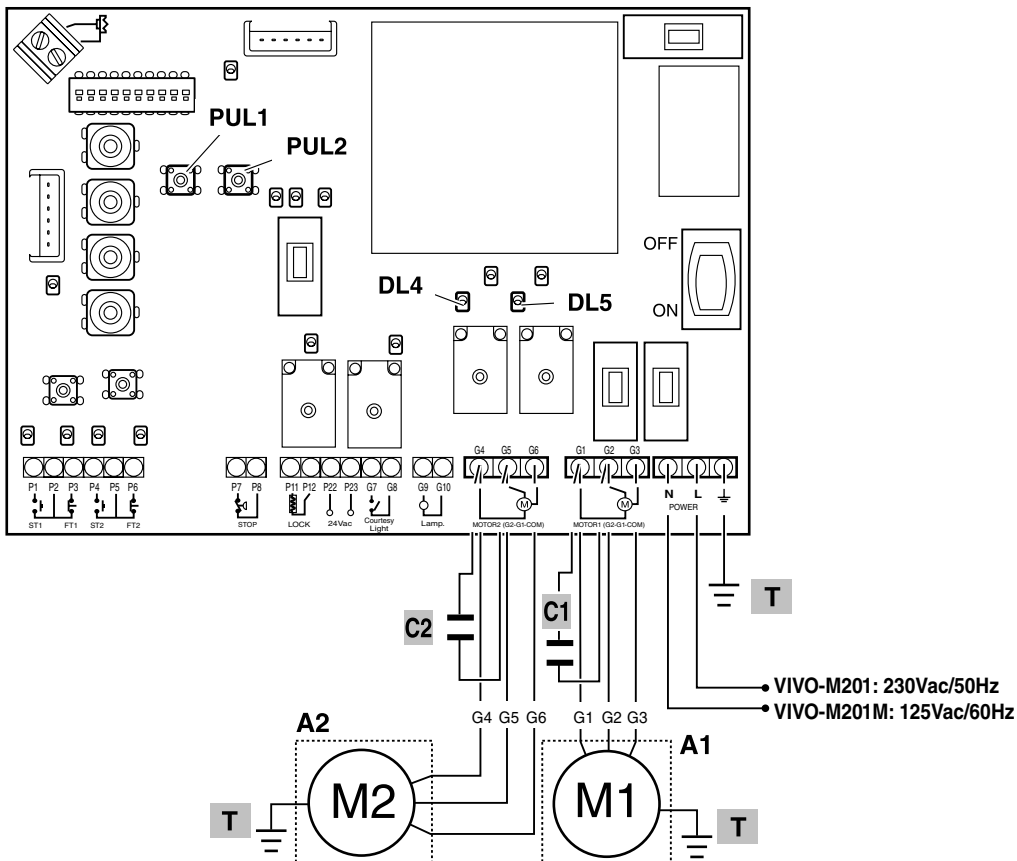
P68D

6 ELECTRICAL CONNECTIONS

The ARES operators, along with the recommended switchboards, allow the implementation of a slowdown system, with the speed slowing down at the end of the closing and opening operations.

We recommend using the **VIVO-M101(M)** switchboard (for single operator installations) and **VIVO-M201(M)** (for twin operator installations).

VIVO-M201(M)



- A1, A2** Operators
- C1, C2** Capacitors
- DL4** Gate opening
- DL5:** Gate closing
- PUL1** Close mini-pushbutton
- PUL2** Open mini-pushbutton
- T** Earth connection

A2 operator connections:

- G4** Open
- G5** Close
- G6** Common (COM), grey cable

A1 operator connections:

- G1** Open
- G2** Close
- G3** Common (COM), grey cable

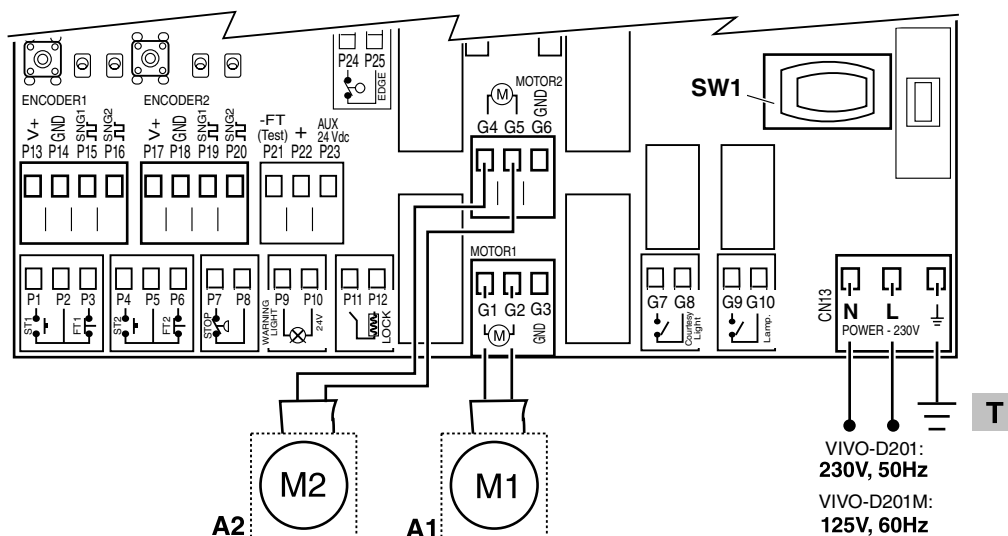
Turning direction:

- When pressing PUL1 (close), DL5 lights up and the A1 G2-G3 and A2 G5-G6 cable connectors are activated.
- When pressing PUL2 (open), DL4 lights up and the A1 G1-G3 and A2 G4-G6 cable connectors are activated.

If the turning direction is not correct, interchange the cables connected in cable connectors G1-G2 or G4-G5.

24VDC operators

☛ We recommend switchboard **VIVO-D201(M)**.



P144Y2

- A1 Operator 1
- A2 Operator 2
- G1/G4 Red cable (motor)
- G2/G5 Blue cable (motor)
- SW1 Main switch

Carry out the following in the VIVO-D201(M) switchboard:

- Select the number of operators using $\text{C } 0$ (C001: one operator, C002: two operators).
- Select the directions using $\text{C } 1$ (A1) and $\text{C } 2$ (A2).
- Programme $\text{C } 7$ for operation without encoder or limit switches (C700).
- For the ARES 24V operator, programme $\text{C } 304$.
- Adjust the thrust in accordance with the weight of the gate (parameter R5).

☛ **Turning direction check:** after connecting the power and activating any of the key devices, the gate makes a reset (the display shows -5): the gate closes until it reaches the stopper, assigning this stopper with the position "gate closed". If it opens instead of closes during the reset, change turning direction using $\text{C } 1$ (A1) or $\text{C } 2$ (A2).

7 FINAL CHECKS

Checking the closing power

▲ The installation must respect the values indicated in Standard EN 12453:2000. All measurements must be made in line with the method described in Standard EN 12445:2000.

- $F_d < 400\text{N}$ in spaces between 50mm and 500mm
- $F_d < 1400\text{N}$ in spaces > 500mm

User instruction

- 1 Instruct the user with regards to the use and maintenance of the installation and provide him/her with the use manual.
- 2 Signal the gate, showing that it opens automatically and indicating how to operate it manually. Where appropriate, indicate that operation is using the remote control.

1 MAINTENANCE

▲ Before carrying out any maintenance operation, disconnect the device from the power supply.

1 Frequently check the installation in order to discover any imbalance or sign of deterioration or wear. Do not use the device if any repair or adjustment is necessary.

2 Clean and lubricate the articulations of the gate and the operator supports, so as not to increase the effort of the operator.

3 Check that the control and safety devices, as well as their installation, have not suffered any damage from the weather or external agents.

2 FAILURE DIAGNOSIS

Problem	Cause	Solution
The operator does not make any movement when the opening or closing controls are activated	Absence of system power supply voltage	Re-establish the power supply
	Electrical installation defective	Check that the installation does not present any short-circuits or cut-off points
	Control panel or control devices defective	Check these elements, seeing their respective manuals
When activating the opening or closing controls, the operator is activated but the gate does not move	Gate obstructed or blocked	Unblock, adjust and lubricate the gate articulations
	The operator has been installed without respecting the installation levels	Carry out the installation again, respecting the levels indicated in the <i>"Assembly positions and levels"</i> on page 31.
The gate moves in an irregular manner	Gate partially obstructed or blocked	Unblock, adjust and lubricate the gate articulations
	The photocell detects an obstacle	Remove the obstacle and try again
The gate cannot completely close (or open)	The resistance of the gate has increased when closing (or when opening)	Check the moving parts of the gate and remove the resistance
	The force of the operator during closing (or opening) is too low	Using the control panel programme, increase the closing or opening force
	The operator has been installed without respecting the installation levels	Carry out the installation again, respecting the levels indicated in the <i>"Assembly positions and levels"</i> on page 31.



3 SCRAP

▲ The operator, up until the end of its useful life, must be dismantled at its location by an installer who is as well qualified as the person who completed the assembly, observing the same precautions and safety measures. In this manner we will avoid possible accidents and damage to adjacent facilities.

♻️ The operator must be deposited in the appropriate containers for subsequent recycling, separating and classifying the different materials in line with their nature. NEVER deposit it in domestic rubbish or in landfills which are not controlled, as this will cause environmental damage.

4 SPARE PARTS

▲ If the operator needs repairing, go to an authorised assistance centre or manufacturer; never try to repair it yourself.

▲ Use only original spare parts.