

CICLÓN

ACCIONADOR ELECTROMECAÁNICO PARA PUERTAS BATIENTES
MANUAL DEL INSTALADOR

ACTIONNEUR ÉLECTROMÉCANIQUE POUR PORTES BATTANTES
MANUEL DE L'INSTALLATEUR

ELECTROMECHANICAL ACTUATOR FOR HINGED DOORS
INSTALLER'S MANUAL

ACCIONADOR ELECTROMECAÁNICO PARA PORTAS BATENTE
MANUAL DO INSTALADOR

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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 the safety warnings could lead to accident or injury.

⌚ Work sequences or procedures.

📖 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 hinged 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.

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 tension regulations and applicable standards.

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

5 AUTOMAT SAFETY ELEMENTS

This device complies with all current safety regulations. However, the complete system comprises, apart from the actuator 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 "Elements of the complete installation" on page 35.

1 ELEMENTS OF THE COMPLETE INSTALLATION

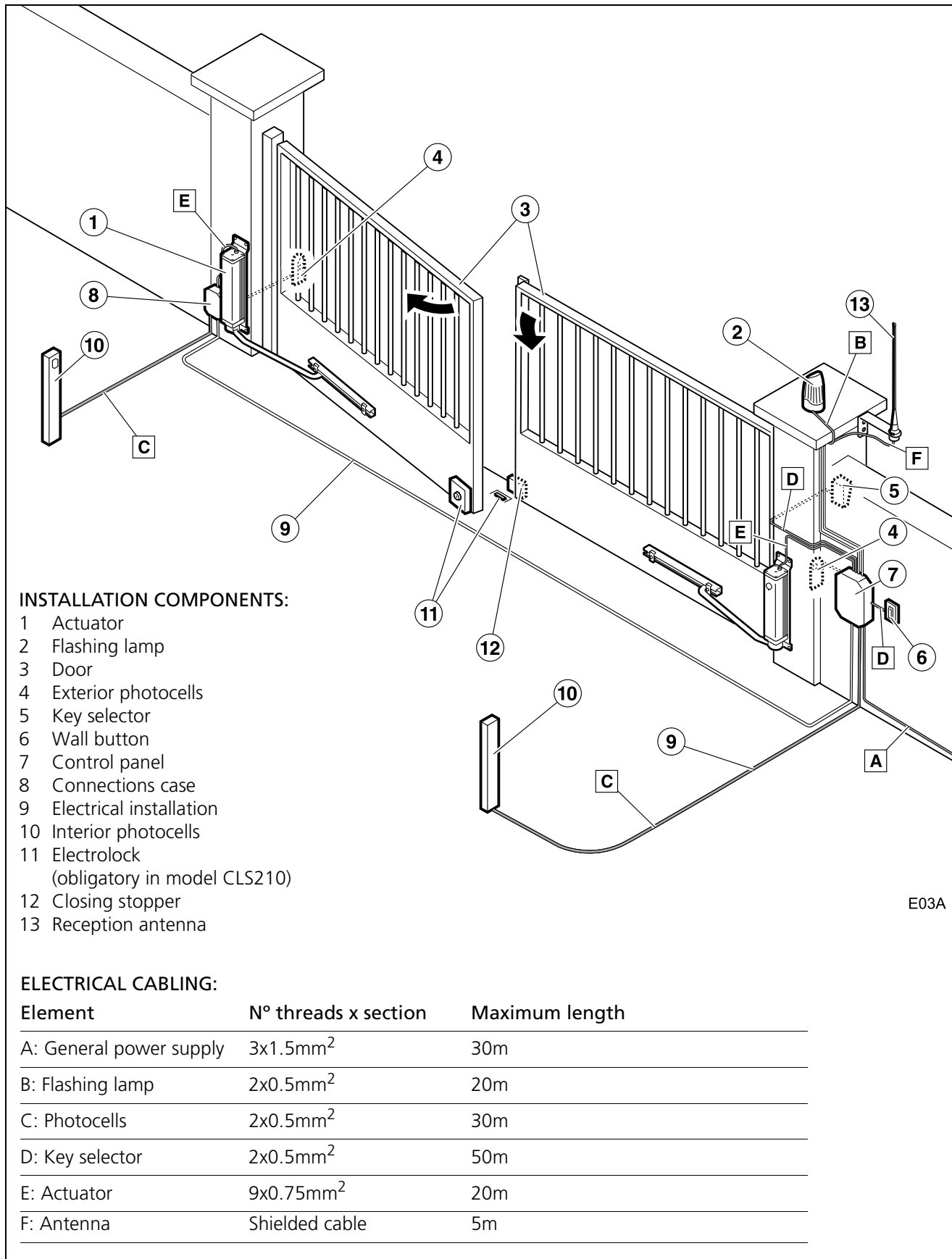


Fig. 1 Elements of the complete installation

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

☞ For greater safety, Erreka recommends installing the photocells (4) and (10).

2 GENERAL CHARACTERISTICS OF THE ACTUATOR

The CLS210/CLS210F actuator is constructed to form part of a hinged door automation system.

It comprises a metal body, which contains the motor and a planetary gears reducer. Model CLS210F also has a brake and unlocking key to operate the door manually in the event of failure of the electricity supply. Allows a maximum opening of approximately 130°.

This actuator, along with its corresponding Erreka control panel, allow the implementation of a gentle halt

system, with the speed slowing down at the end of the closing and opening operations.

With model CLS210 it is necessary to install an electrical lock, as is also the case with model CLS210F for leaf lengths of over 1.8m.

Actuator CLS210/CLS210F can be installed with an articulated arm or with a sliding arm.

This actuator allows us to fulfil the requirements of standard EN 12453 without the use of peripheral elements.



3 MAIN ACTUATOR PARTS

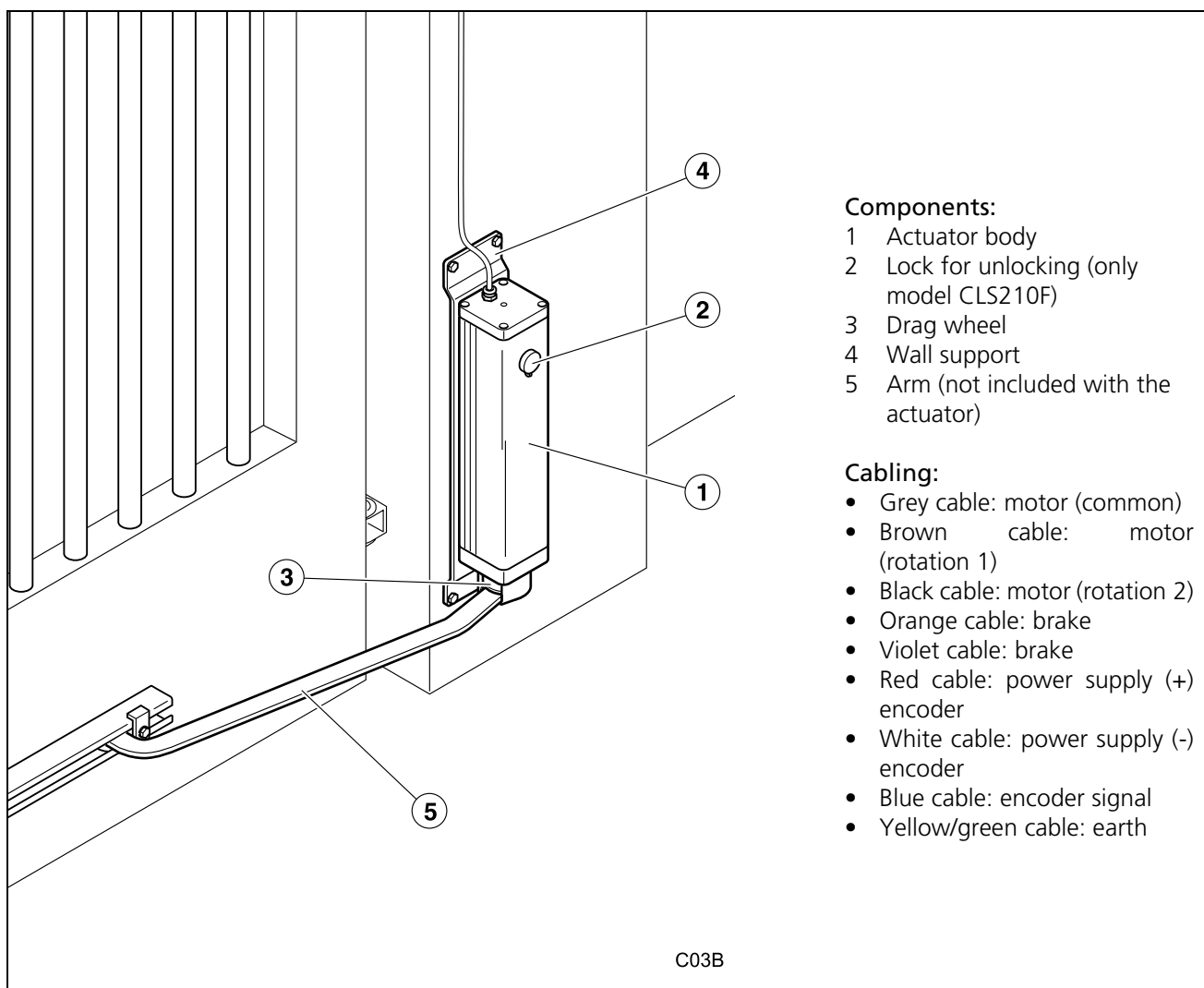
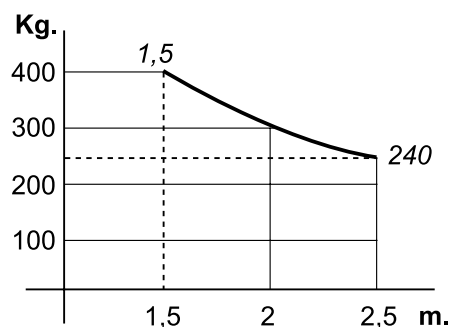


Fig. 2 Main components

4 GENERAL CHARACTERISTICS OF THE ACTUATOR

Model	CLS210	CLS210F
Power supply (V/Hz)	230/50	
Intensity (A)	1	
Power consumed (W)	230	
Condenser (μ F)	5	
Protection grade (IP)	54	
Available torque (Nm)	220	
Output speed (rpm)	1,3	
Opening time 90° (s)	12	
Lock	No	Yes
Service temperature (°C)	-20/+60	
Work cycle (%)	20	
Actuator dimensions (mm)	88 x 88 x 470	
Weight (Kg).	13	
Size and weight of the door	See chart	

Limits on use



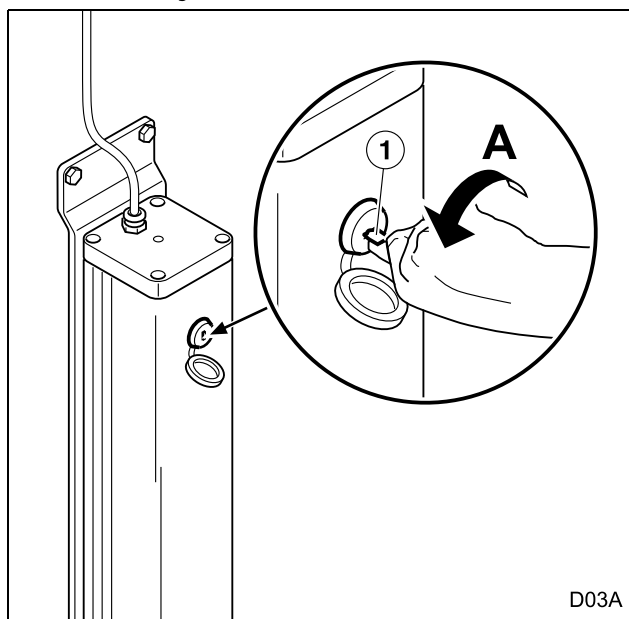
G03A

- We recommend using the chart 65-AEP20PIL9.
- We recommend using an electrolock for leaf lengths of over 1.8m.
- Values for orientation purposes. The form of the leaf and the presence of strong wind may bring notable differences in the values of the chart.

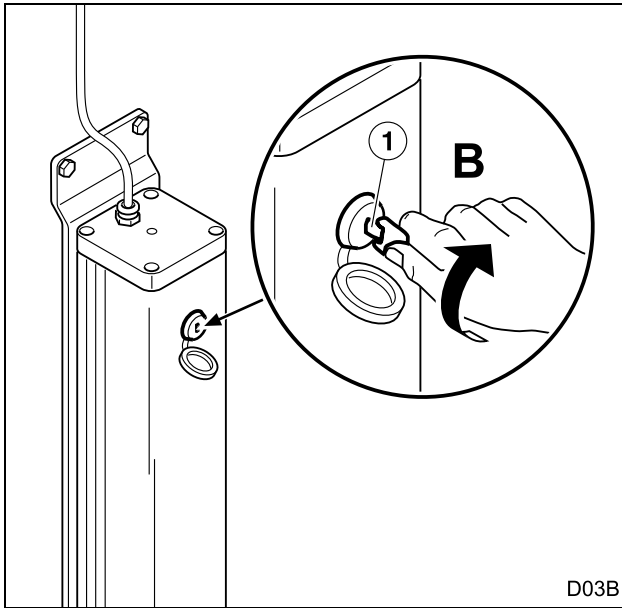
5 MANUAL OPERATION

- In the event of need, the door may be operated manually. In model CLS210F it is necessary to first run the unlocking mechanism.

Unlock (only for model CLS210F)



- 1 Introduce the key in the unlocking system lock and rotate the unlocking key (1) 90° anti-clockwise (A).
- 2 Move the door manually.

Lock (only for model CLS210F)

☞ In order to restart automatic operation of the system, carry out the following operations:

- 1 Introduce the key in the unlocking system lock and rotate the unlocking key (1) 90° clockwise (B).

6 DECLARATION OF CONFORMITY

Erreka Automatismos declares that the electromechanical actuator CLS210/CLS210F has been drawn up 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 CLS210/CLS210F electromechanical actuator allows us to carry out installations which comply with standards EN 13241-1 and EN 12453.

The CLS210/CLS210F electromechanical actuator 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 UNPACKING

1 Open the package and carefully remove the contents from within.

♻️ Eliminate the packaging in an environmentally friendly manner, using recycling containers.

⚠️ **Do not leave the packaging within the reach of children or handicapped people, as it may cause injury.**

2 Check the content of the packages (see figure below).

👉 Should it be noticed that a piece is missing or deteriorated, contact the closest technical service.

2 CONTENT

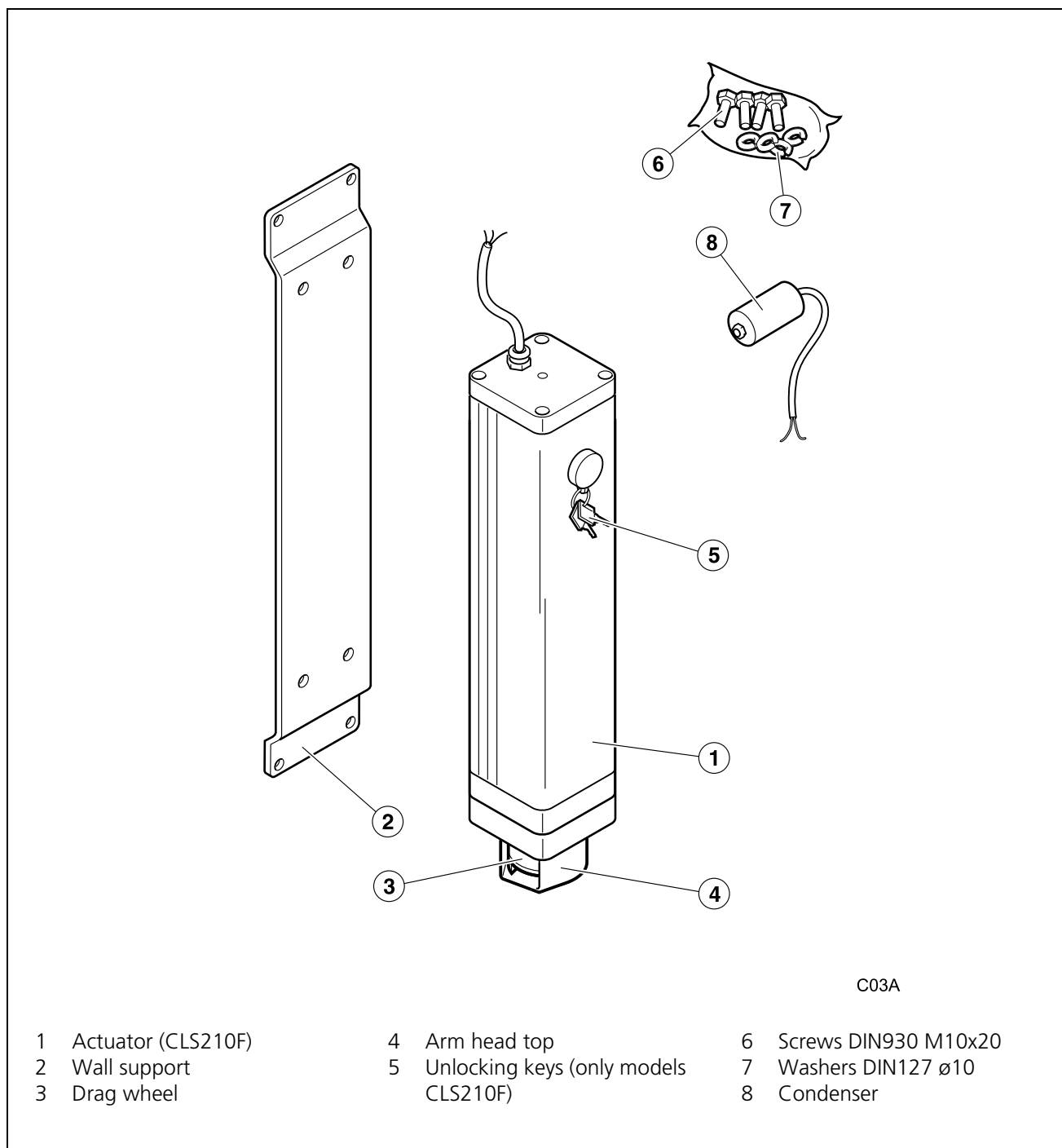
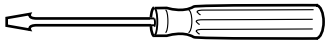


Fig. 3 Content and spare parts



1 NECESSARY TOOLS



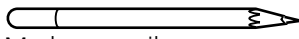
Set of screwdrivers



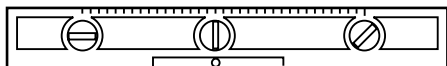
Set of fixed wrenches (17 mm and 13 mm)



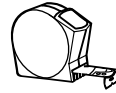
Allen key 5mm



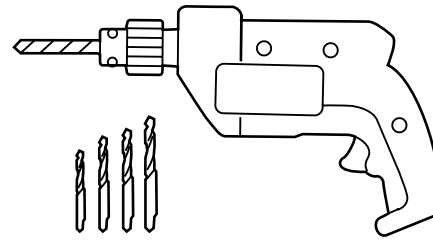
Marker pencil



Level



Tape measure



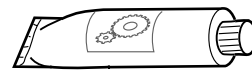
Electric drill and broaches

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

2 NECESSARY MATERIALS



Wall support attachment screws



Lubrication grease (graphite or lithium grease).

3 INITIAL CONDITIONS AND CHECKS

Initial conditions of the door

▲ Check that the size of the door is within the admissible range of the actuator (see the technical characteristics of the actuator).

▲ If the door to be automated has a passage door, use a safety device to prevent the actuator from operating with the passage door open.

☞ The door must have a closing stopper. When installing with an articulated arm, it is necessary to use the opening and closing stopper.

☞ The door must be easy to manipulate manually, namely:

- This 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 actuator in a door which does not work correctly in manual operation, as this may lead to accidents. Repair the door 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 actuator 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 35.

4 INSTALLING THE ACTUATOR

Assembly positions and dimensions

This actuator can be assembled on either of two types of arm:

- Sliding arm
- Articulated arm

The installation depends on the type of arm used.

A Assembly with sliding arm

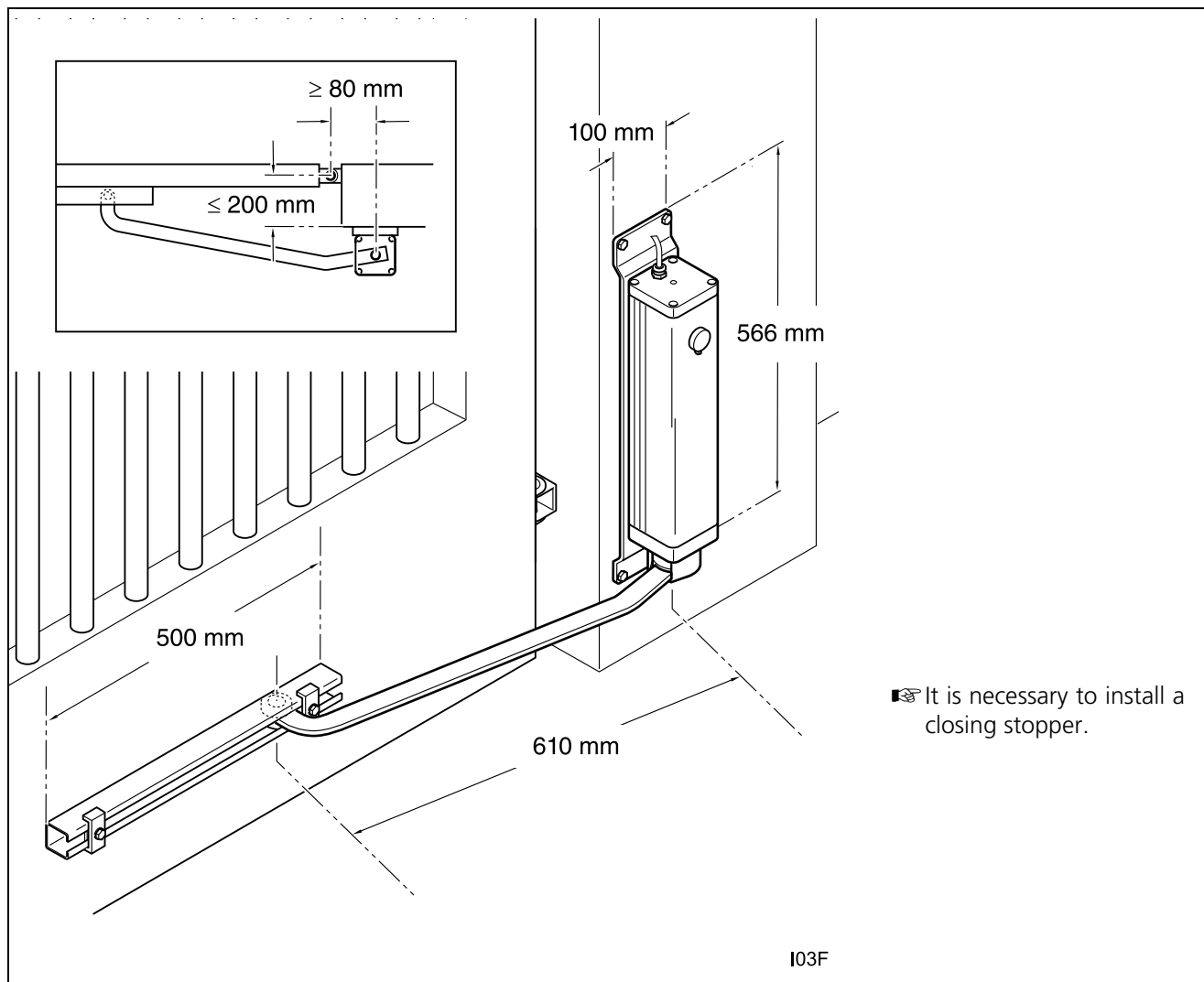


Fig. 4 Example of assembly position for actuator with sliding arm

B Assembly with articulated arm

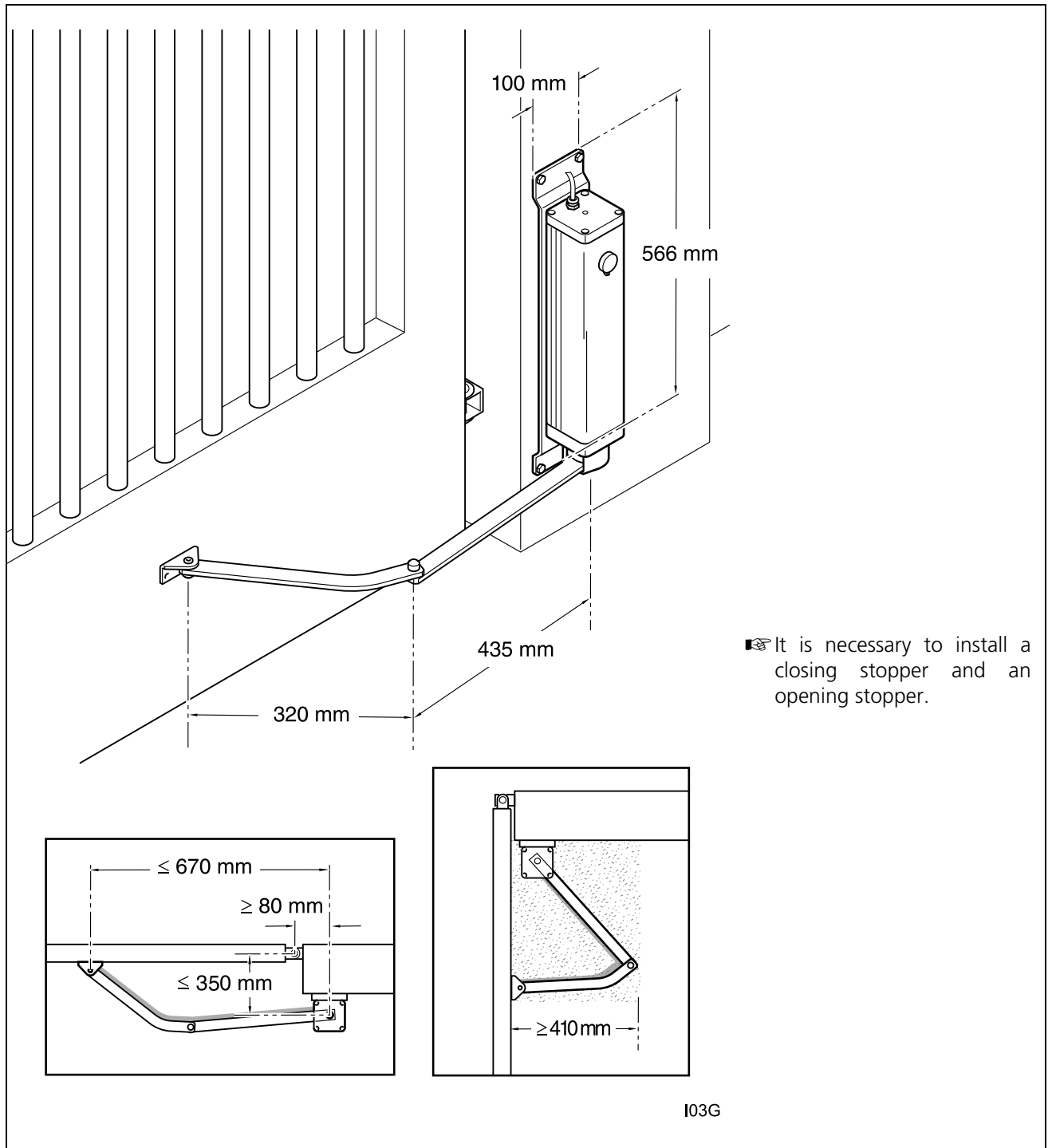
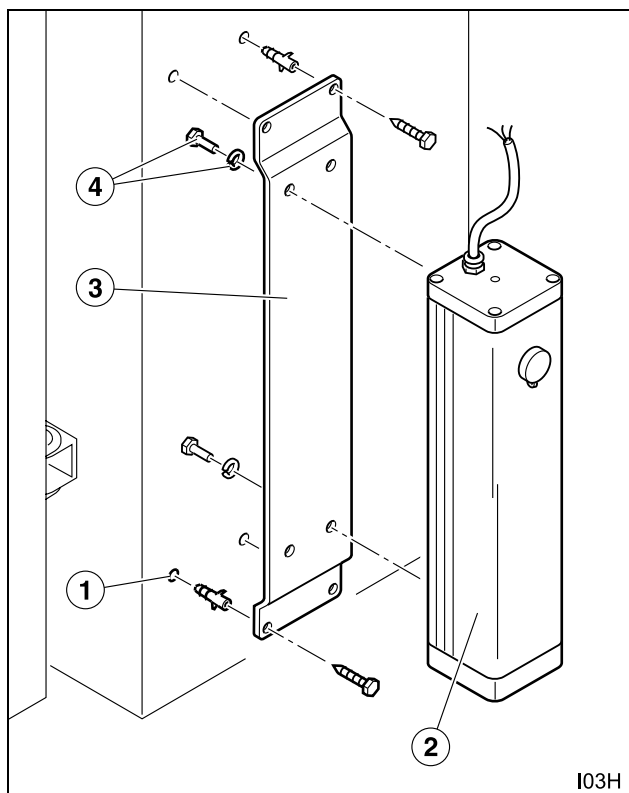


Fig. 5 Example of assembly position for actuator with articulated arm



Procedure

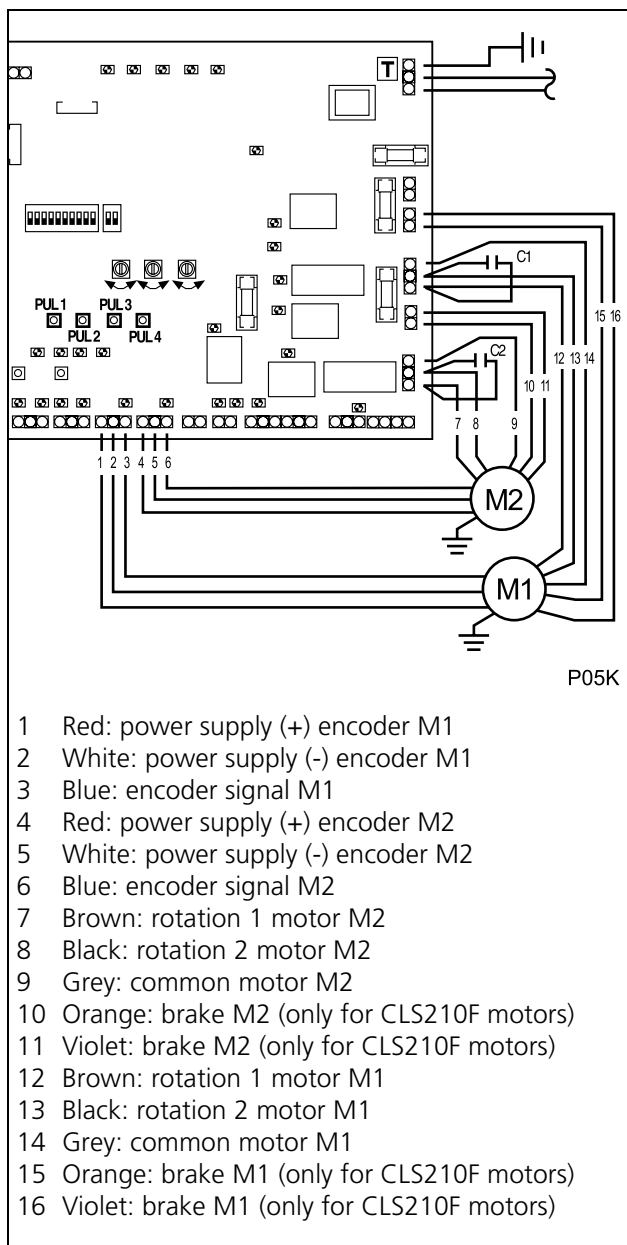
Position the wall support and the actuator



- 1 Choose screws which are suitable for the place of attachment (metal, brick, wood, etc) and the weight and effort of the actuator.
▲ Use appropriate screws.
- 2 Mark the points to bore in the wall.
 ✎ Before marking the position of the needles, ensure the assembly dimensions and positions are respected, see "Fig. 4 Example of assembly position for actuator with sliding arm" and "Fig. 5 Example of assembly position for actuator with articulated arm".
- 3 Bore the points (1) marked.
- 4 Attach the actuator (2) to the wall support (3) using the screw-nut sets (4).
- 5 Mount the actuator and support on the wall using appropriate screws.



Connect the motor to the control panel (65-AEP20PIL)



▲ Before making any electrical connections, check the control panel instructions manual.

1 Connect the motor (M1, M2) and the condenser (C1, C2) to the control panel.

▲ Connect the motor's earth cable to the earth terminal (T) on the control panel.

2 Connect the control panel to the electrical grid.

3 Activate the power supply switch.

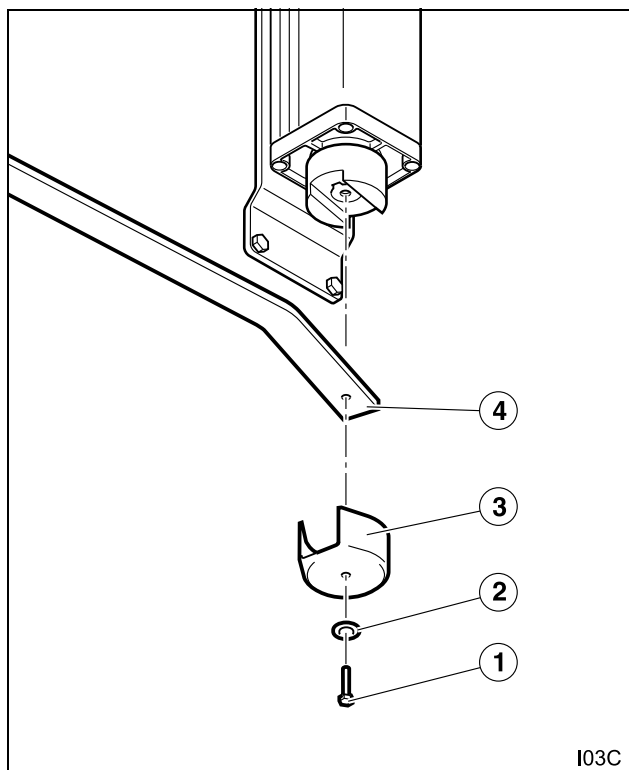
▲ Before carrying out any door movement, ensure there is no person or object in the radius of action of the door and the operation mechanisms.

4 Using the control panel controls (PUL1, PUL2, PUL3, PUL4), check the motor connections are correct (rotation direction).

☞ If the rotation direction is not correct, interchange the cables 12 and 13 of M1 or 7 and 8 of M2, as appropriate.



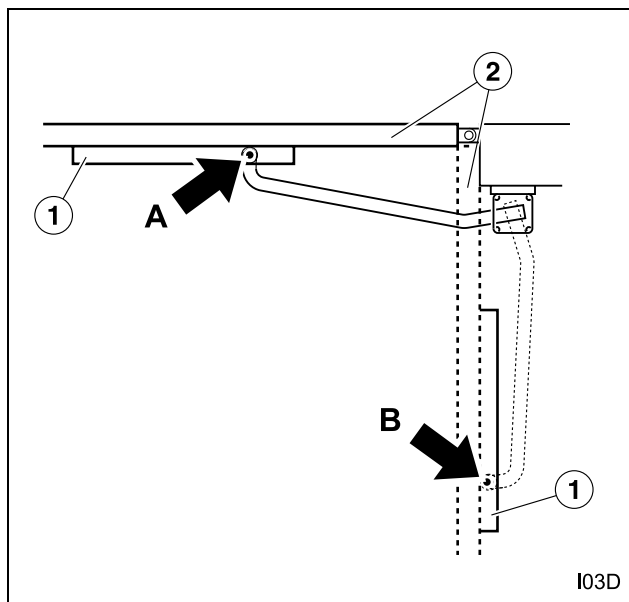
Attach the arm to the actuator



- 1 Remove the arm head top (3) by releasing the screw (1) and the nut (2).
- 2 Position the arm (4).
- 3 Replace the arm head top (3).
- 4 Attach the arm (4) and the top (3) to the actuator (1) and the nut (2).

Option A: Actuator with articulated arm

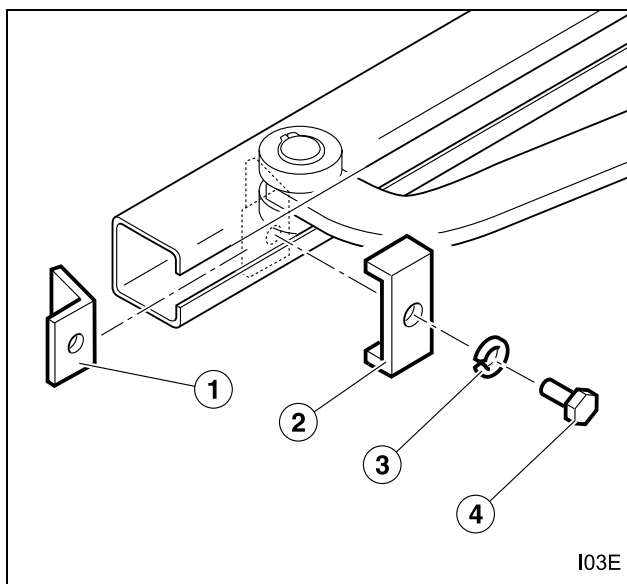
Attach the arm to the door



- 1 In model CLS210F, unlock the motor with the unlocking key, see section "Manual operation" on page 37.
- 2 Close the door and mark the arm bearing position on the door (A).
- 3 Open the door to the required point and mark the arm bearing position on the door (B).
- 4 Attach the rail (1) to the door (2), aligned with regards to the two marks made.
 - ⓘ See the sliding arm instructions.



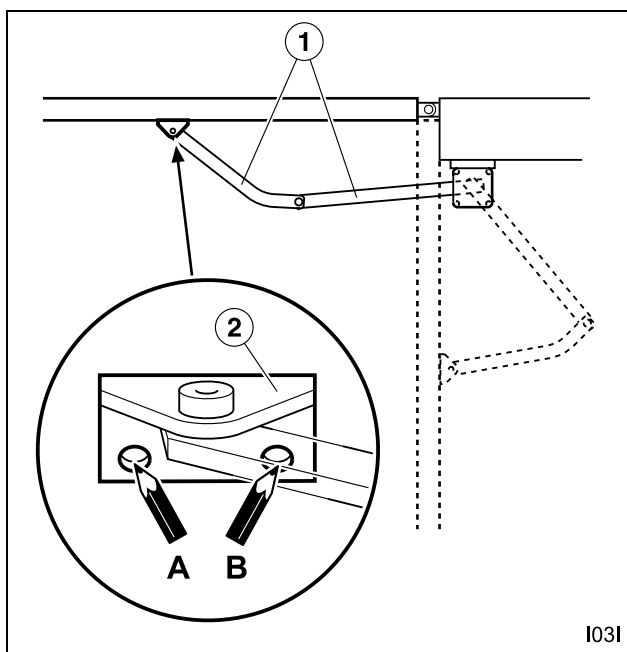
Position the opening and closing stopper



- 1 Attach the opening stopper (1) to the support plate (2) with the nut (3)-screw set (4).
- 2 Attach the closing stopper (in the opposite direction to the opening stopper) to the support plate with the screw-nut set.

Option B: Actuator with articulated arm

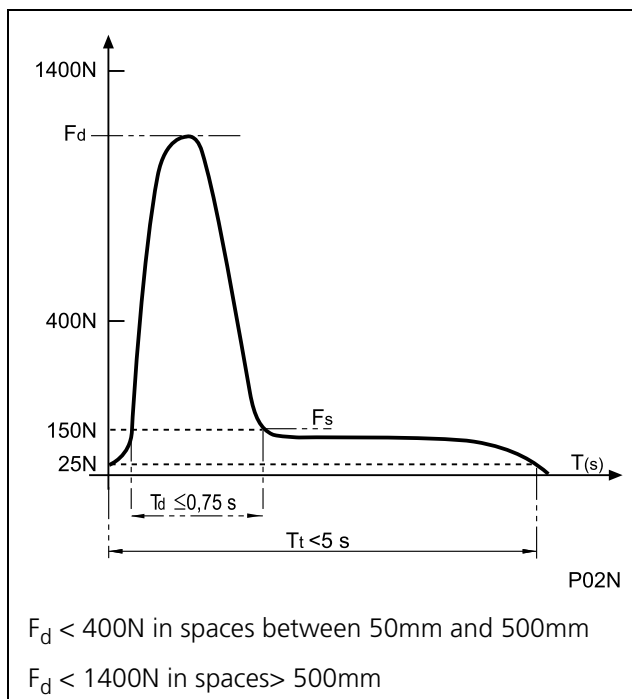
Attach the arm to the door



- 1 In model CLS210F, unlock the motor with the unlocking key, see section "Manual operation" on page 37.
- 2 Close the door, extend the arm (1) to a maximum of 670 mm and mark the positions (A) and (B) of the attachment bracket orifices (2).
 - ✎ Ensure the indicated distance is not exceeded, see "Fig. 5 Example of assembly position for actuator with articulated arm".
- 3 Make the orifices in the door in the position marked.
- 4 Attach the support (2) to the door.
 - ℹ See the articulated arm instructions.

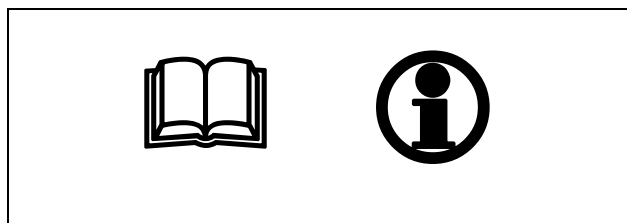
5 FINAL CHECKS

Connections and checks



- 1 Install an eletrolock to lock the door in closing position. This is necessary for model CLS210 and for model CLS210F if the length of the leaf is over 1.8m.
 - ☞ See the electrolock instructions.
- 2 Carry out the installation and the connections for all the elements of the facility, in line with the control panel instructions.
- 3 Check that the mechanism is correctly regulated.
 - ⚠ **The torque regulator of the control panel must be adjusted in a manner which respects the values indicated in standard EN 12453:2000, as shown in the attached chart. The measurements must be made in line with the method described in standard EN 12445:2000.**
- 4 Check the operation of all the installation elements, especially the protection systems and the manual operation unlocking system.

User instruction



- 1 Instruct the user with regards to the use and maintenance of the facility and provide him/her with the use manual.
- 2 Point to the door, 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 electrical grid.

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

2 Clean and lubricate the articulations and rails of the garage door, so as not to increase the effort of the actuator.

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

2 FAILURE DIAGNOSIS

Problem	Cause	Solution
The actuator does not make any movement when the opening or closing controls are activated	Absence of system power voltage	Re-establish the power supply voltage
	Defective electrical installation	Check that the installation does not present any short-circuits or cut-off points
By activating the opening or closing controls, the actuator is enabled but the door does not move	Defective control panel or control devices	Check these elements, seeing their respective manuals
	Door obstructed or blocked	Unblock, adjust and lubricate the door articulations
The door moves in an irregular manner	The angle formed by the two sections of the articulated arm is too big or too small	Carry out installation again, respecting the dimensions indicated in the "Fig. 5 Example of assembly position for actuator with articulated arm"
	Door partially obstructed or blocked	Unblock, adjust and lubricate the door articulations
The door cannot completely close (or open)	The photocell detects an obstacle	Eliminate the obstacle and try again
	The resistance of the door has increased when closing (or when opening)	Check the moving parts of the door and eliminate the resistance
	The force of the actuator during closing (or opening) is too low	Using the control panel programme, increase the closing or opening force
	The mechanical stoppers of the door or the actuator are maladjusted	Adjust the stoppers

3 SCRAP

⚠ The actuator, 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 actuator 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 actuator needs repairing, go to an authorised assistance centre or manufacturer; never try to repair it yourself.

⚠ Use only original spare parts. See the figure "Content and spare parts" on page 39.