



V2 S.p.A.

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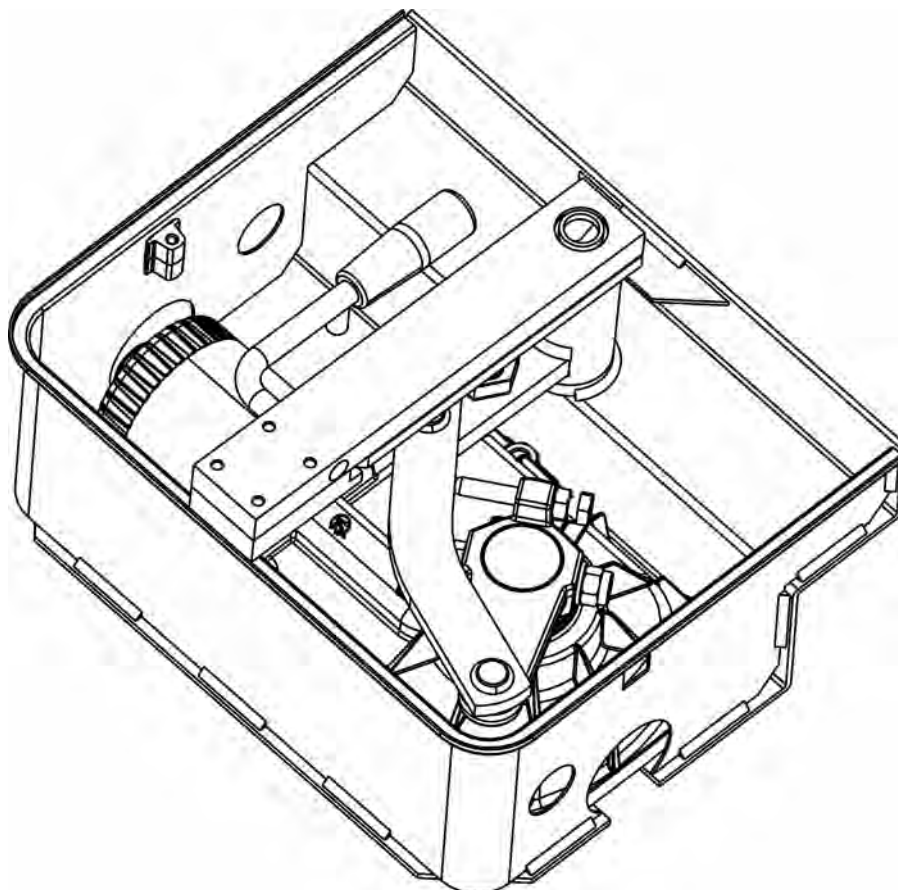
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IL n.245-A
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VULCAN



- I** **ATTUATORE ELETTROMECCANICO IRREVERSIBILE PER CANCELLI A BATTENTE (MONTAGGIO INTERRATO). ISTRUZIONI D'USO E INSTALLAZIONE**
- GB** **IRREVERSIBLE ELECTROMECHANICAL ACTUATOR (UNDERGROUND INSTALLATION) FOR LEAF GATES OPERATING AND INSTALLATION INSTRUCTIONS**
- F** **OPERATEUR ELECTROMECHANIQUE IRREVERSIBLE (MONTAGE ENTERRE) POUR PORTAILS À BATTANT NOTICES D'EMPLOI ET D'INSTALLATION**
- D** **NICHT UMKEHRBARER ELEKTROMECHANISCHER ANTRIEB (UNTERFLURMONTAGE) FÜR FLÜGELTÖRE BEDIENTUNGSANLEITUNGEN UND INSTALLATION**
- E** **OPERADOR ELECTROMECHANICO IRREVERSIBLE (MONTAJE ENTERRADO) PARA CANCELAS BATIENTES INSTRUCCIONES DE USO E INSTALACION**



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IMPORTANT PRECAUTIONS FOR THE INSTALLER

For any installation problems please contact V2 S.p.A.
TEL. (+39) 01 72 81 24 11

V2 S.p.A. has the right to modify the product without previous notice; it also declines any responsibility to damage or injury to people or things caused by improper use or wrong installation.



Please read this instruction manual very carefully before installing and programming your control unit.

- This instruction manual is only for qualified technicians, who specialize in installations and automations.
- The contents of this instruction manual do not concern the end user.
- Every programming and/or every maintenance service should be done only by qualified technicians.

AUTOMATION MUST BE IMPLEMENTED IN COMPLIANCE WITH THE EUROPEAN REGULATIONS IN FORCE:

- EN 60204-1** (Machinery safety electrical equipment of machines, part 1: general rules)
- EN 12445** (Safe use of automated locking devices, test methods)
- EN 12453** (Safe use of automated locking devices, requirements)

- The installer must provide for a device (es. magnetothermal switch) ensuring the omnipolar sectioning of the equipment from the power supply. The standards require a separation of the contacts of at least 3 mm in each pole (EN 60335-1).
- Installation requires mechanical and electrical skills, therefore it shall be carried out by qualified personnel only, who can issue the Compliance Certificate concerning the whole installation (Machine Directive 98/37/EEC, Annex IIA).
- Also the automation upstream electric system shall comply with the laws and rules in force and be carried out workmanlike.
- Verification of thrust force and inversion times, in the case of the detection of a door leaf obstacle, must satisfy the minimum requirements indicated in standard EN 12453.
- For correct installation of the system, we recommend following the instructions issued by UNAC very carefully, which can be consulted at the following web site:
www.v2home.com
- The appliance is not to be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.
- Children being supervised do not play with the appliance
- The supply cord cannot be replaced. If the cord is damaged the appliance should be scrapped.

DECLARATION OF CONFORMITY

V2 S.p.A. declares that the series of VULCAN actuators are in conformity with the provisions of the following EC directives:

- 2006/95/CEE** electrical safety
93/68/CEE electromagnetic compatibility
98/37/CEE machine directive

Note: Declares that the above mentioned devices may not be operated until the machine (automated gate) is identified, CE-labeled, and declared to be compliant to the specifications of Directive 89/392/EEC and following modifications.

The installation supervisor must provide the user with copies of the following documents:

- Technical specification paper
- Declaration of conformity
- CE-labeling
- Testing record
- Maintenance record
- Operation manual and directions

Racconigi 04/08/2007

V2 S.p.A. legal representative

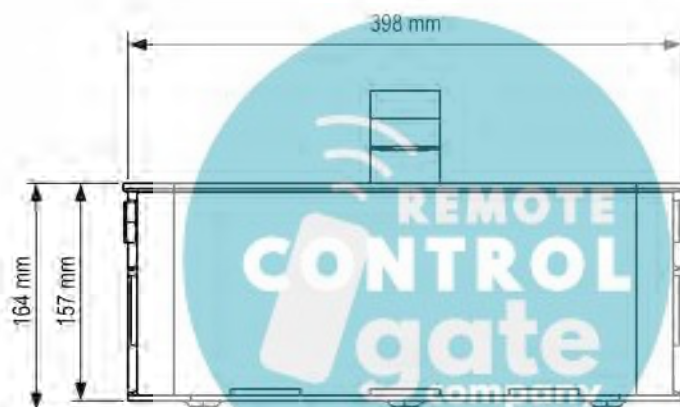
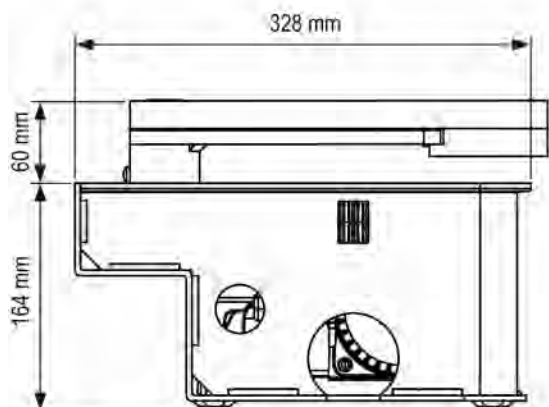
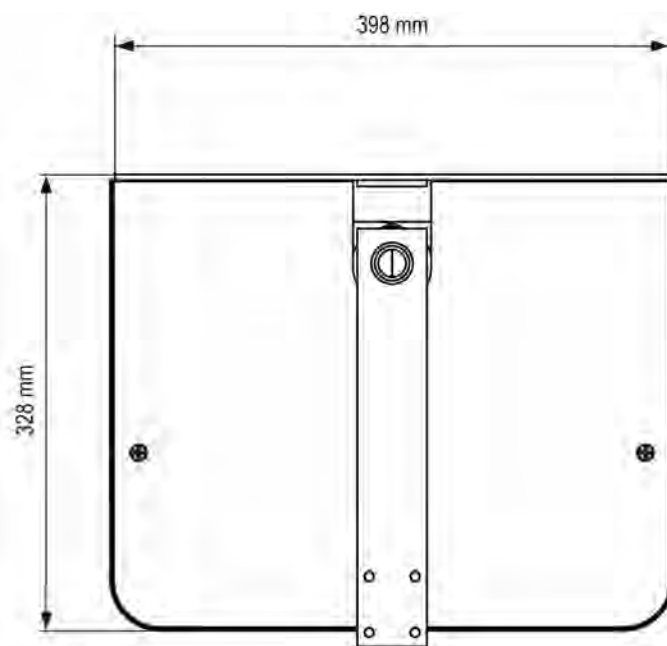
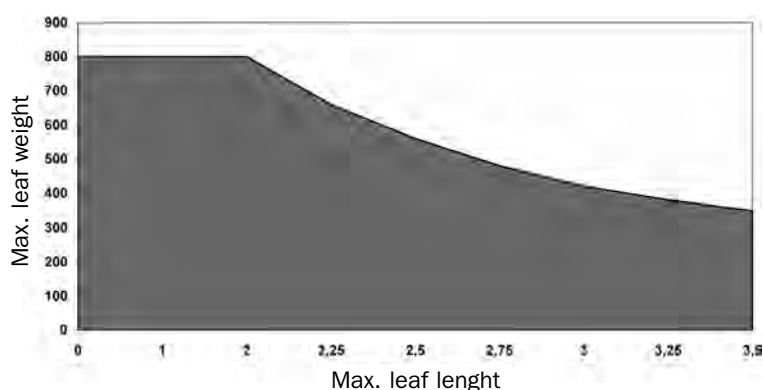
A. Livio Costamagna



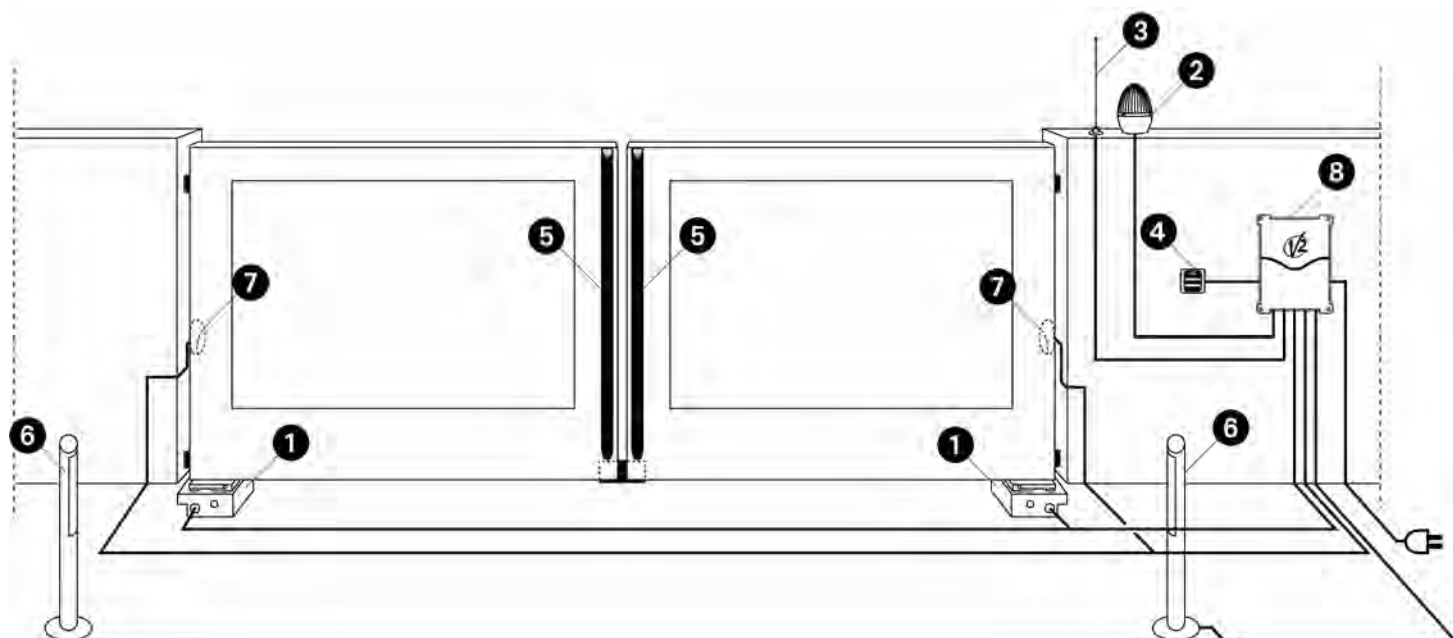
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TECHNICAL DATA		24V	120V	230V
Max. leaf lenght	m	2 x 800 Kg 2,5 x 550 Kg 3 x 400 Kg 3,5 x 350 Kg	2 x 800 Kg 2,5 x 550 Kg 3 x 400 Kg 3,5 x 350 Kg	2 x 800 Kg 2,5 x 550 Kg 3 x 400 Kg 3,5 x 350 Kg
Power supply	V / Hz	24	120 / 60	230 / 50
Idling current	A	1	3	1,5
Maximum current absorption	A	15	4,8	2,4
Maximum nominal power consumption	W	300	500	500
Capacitor	µF	-	35	14
Opening time (90°)	s	15 ÷ 25	15	17
Maximum torque	N m	320	320	320
Working temperature	°C	-20 ÷ +55	-20 ÷ +55	-20 ÷ +55
Thermal protection	°C	-	150	150
Working cycle	%	80	30	30
Motor weight	Kg	11,5	11	11
Protection	IP	67	67	67



INSTALLATION LAYOUT



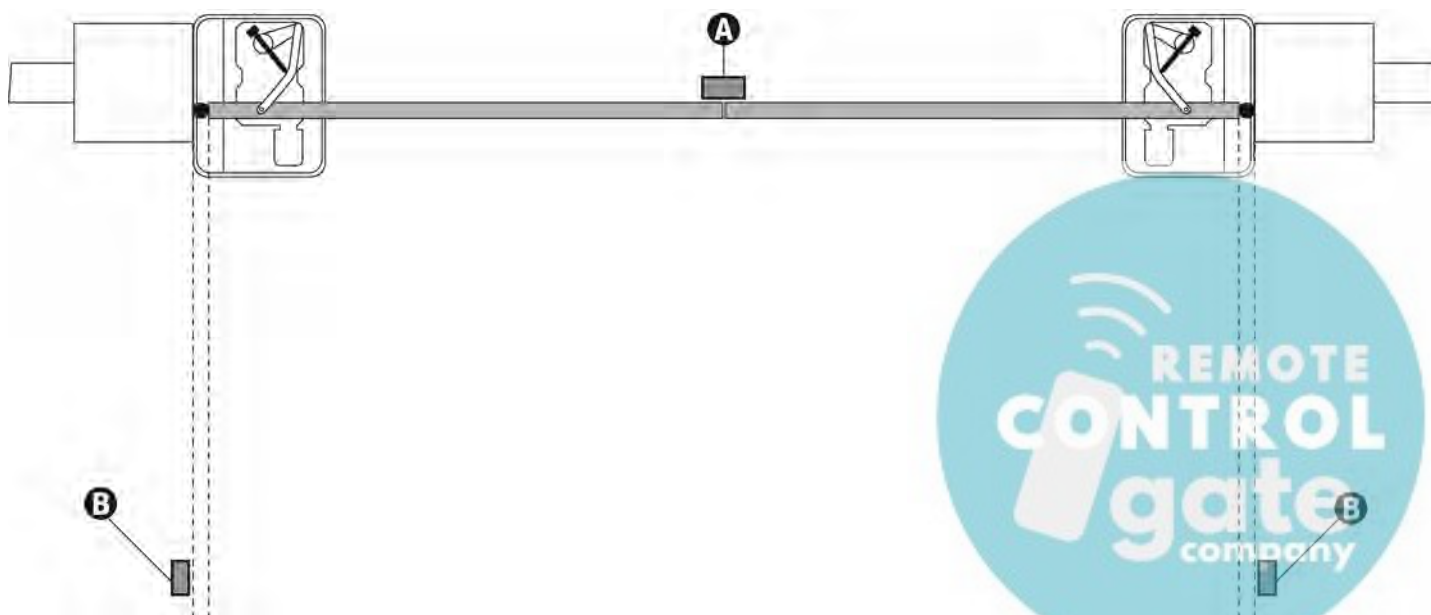
❶ VULCAN actuator	cable 4 x 1 mm ²
❷ Blinker	cable 2 x 1,5 mm ²
❸ Aerial	cable RG-58
❹ Key or digital selector	cable 2 x 1 mm ²
❺ Safety edge (EN 12978)	-

❻ Internal photocells	cable 4 x 1 mm ² (RX) cable 2 x 1 mm ² (TX)
❼ External photocells	cable 4 x 1 mm ² (RX) cable 2 x 1 mm ² (TX)
❽ Control unit	cable 3 x 1,5 mm ²

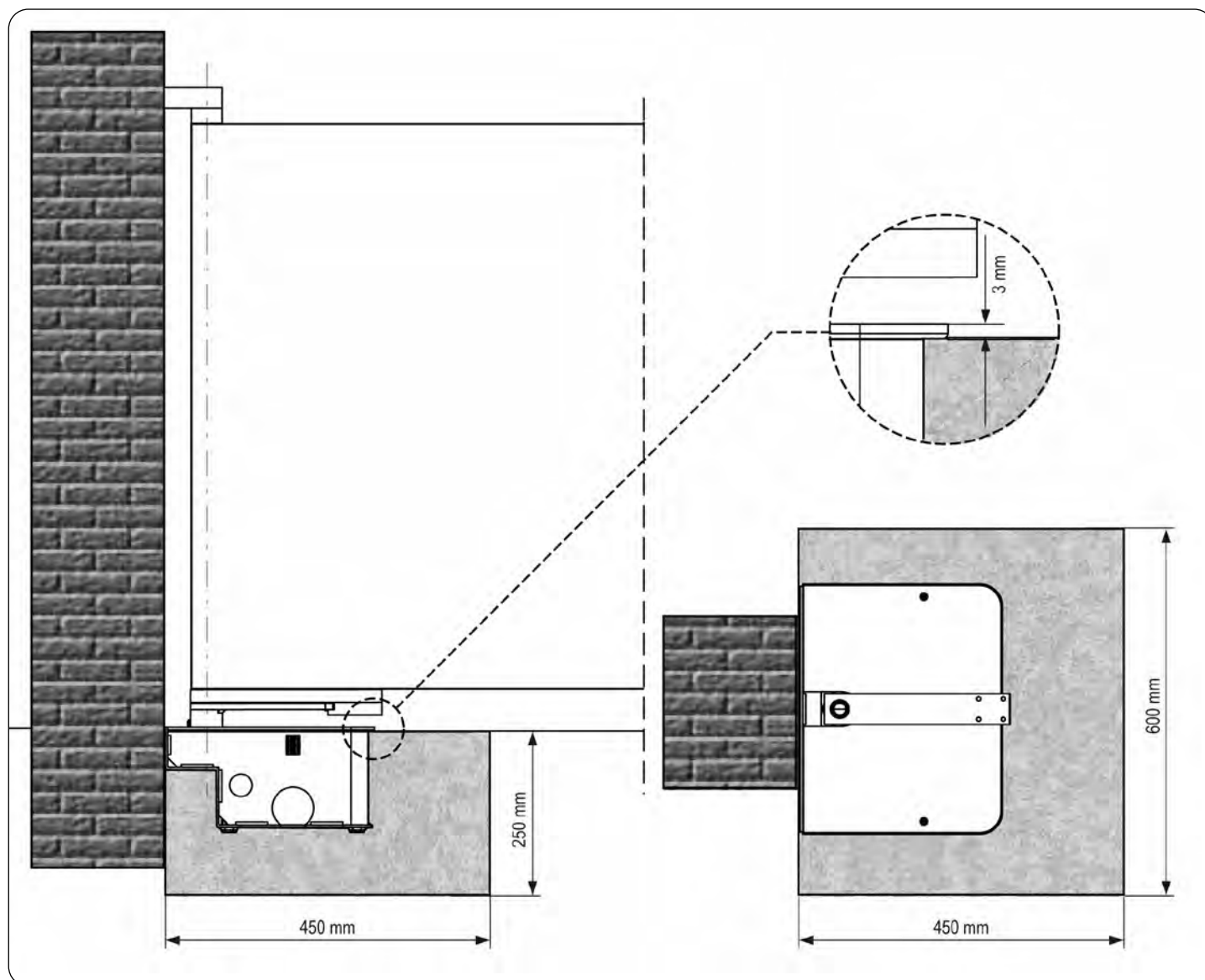
PREPARATORY STEPS

The new series of actuators VULCAN, has been devised to serve gates up to 800 Kg with leaf up to 3 meters wide (look at the table technical data). Before proceeding with the installation, please make sure that your gate opens and closes freely, and that:

- Hinges and pins are in optimum condition and properly greased.
- No obstacles are within the moving area.
- There is no friction with the ground or between the leaves.
- Your gate shall be equipped with central **A** and side **B** stops, which are fundamental for the good system operation.



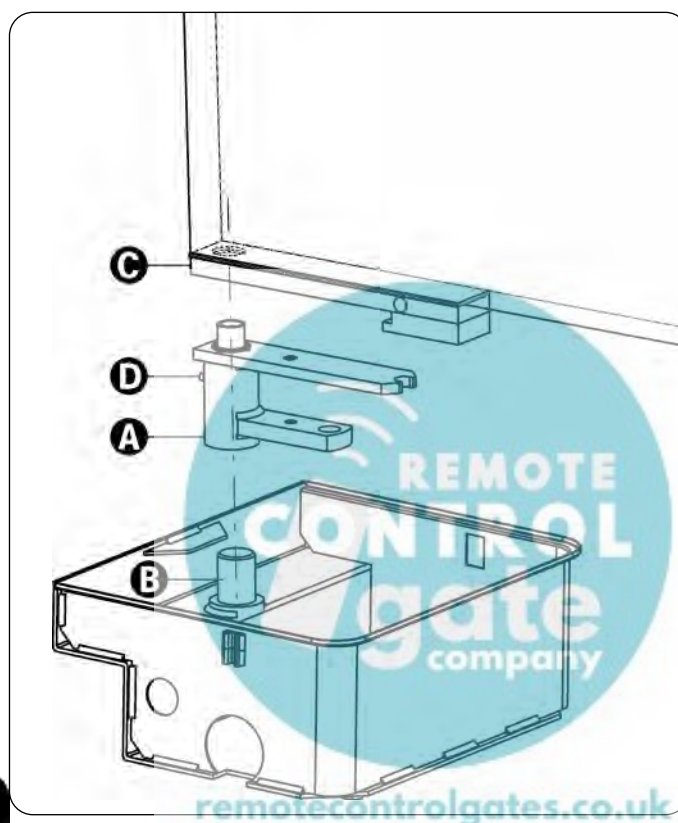
POSITIONING THE FOUNDATION BOX AND THE LEVER CONTROL AND BLOCKING SYSTEM



1. Depending on the dimensions, dig a suitably sized foundation ditch (it is recommended to provide adequate drainage in order to avoid water pooling).
2. Place the foundation box inside the trench, with the support pivot aligned with the hinge axis.
3. Install a conduit for the electrical cables, and another for drainage.
4. Embed the foundation box in concrete, ensuring it is level and plumb.

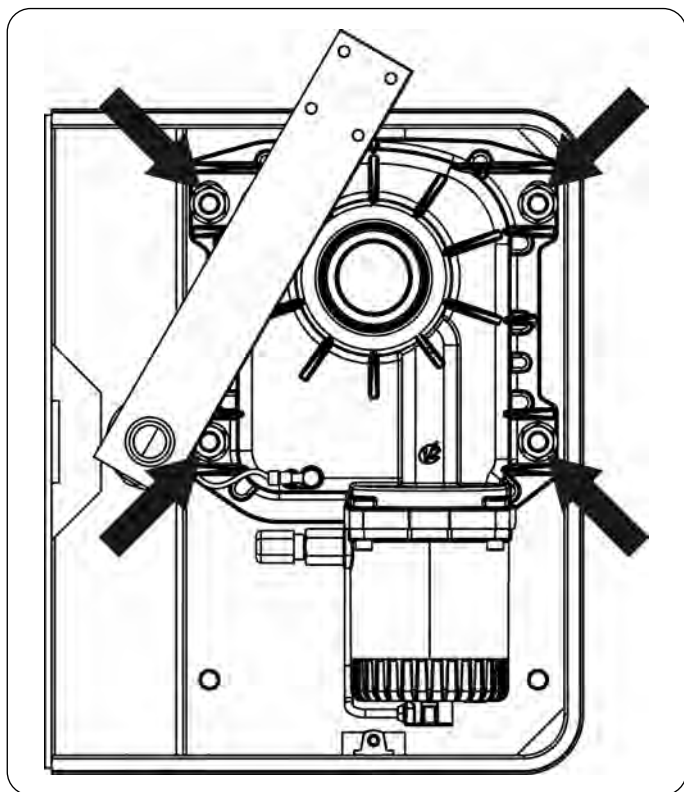
WARNING: ensure that the concrete used is properly cured prior to proceeding with the following steps.

5. Insert the control rod A over the foundation box supporting pivot B.
6. Rest the gate leaf on blocking lever C and weld it securely in place.
7. Grease the mechanism using the appropriate grease nipple D.

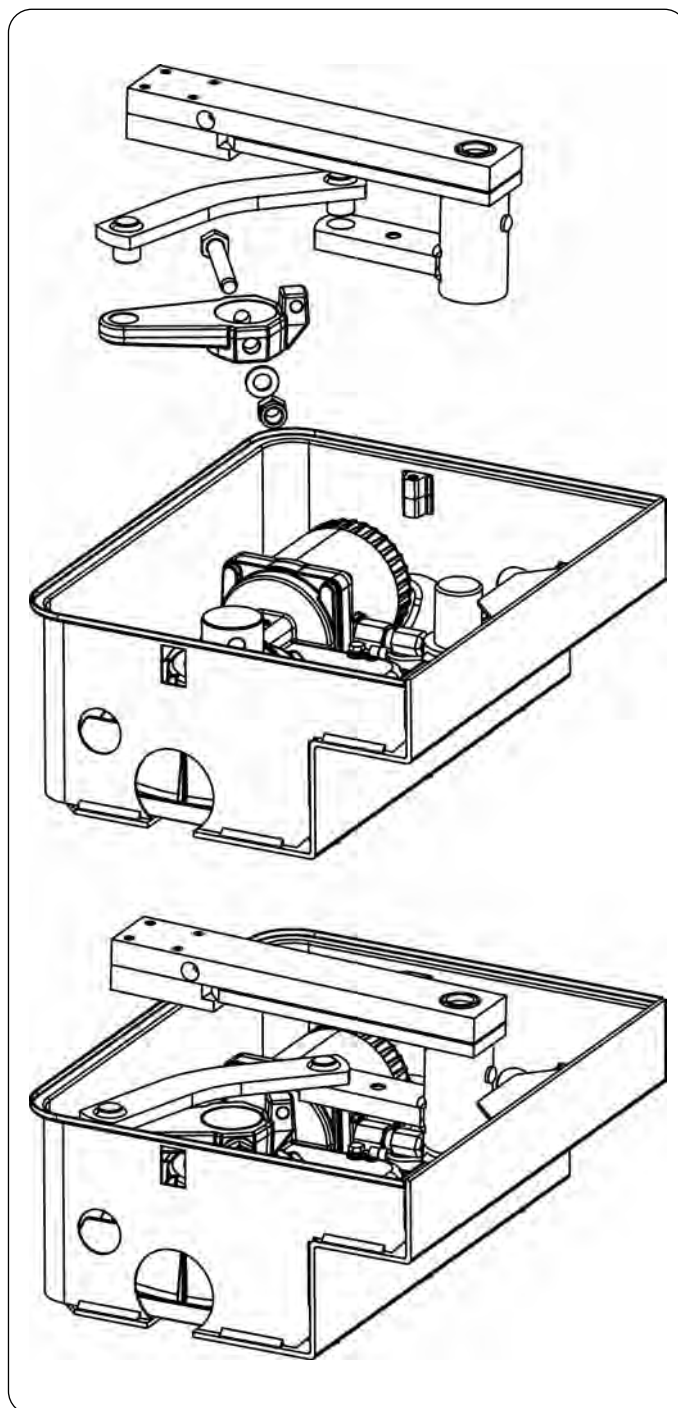


INSTALLING THE VULCAN MOTOR REDUCER GEAR UNIT

1. Place the motor reducer gear unit inside the foundation box.
2. Fix the motor reducer in place inside the foundation box by tightening the 4 nuts.



3. Mount the motor connecting rod on the motor drive shaft and fix the screw in place using the corresponding self-locking nut.
4. Connect the motor connecting rod to the control rod by means of the elbow lever.
5. Connect the motor to the control unit, following the instructions in the following paragraph.



ELECTRICAL CONNECTIONS

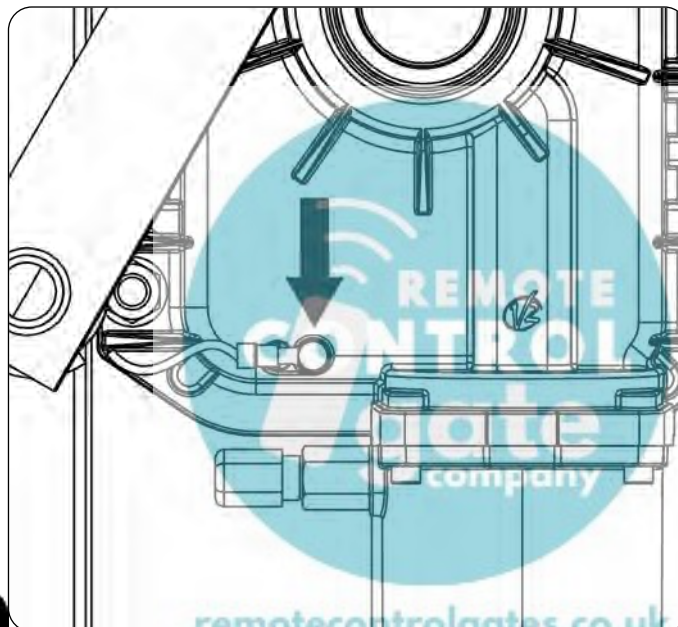
VULCAN-230V / VULCAN-120V

YELLOW - GREEN	GND
BLUE	COMMON
BLACK	OPENING / CLOSING
BROWN	CLOSING / OPENING

⚠ WARNING: Always connect the earth cable to the mains power earth system. Use the special fastom shown in the figure, and a cable with a minimum cross sectional area of 2.5 mm²

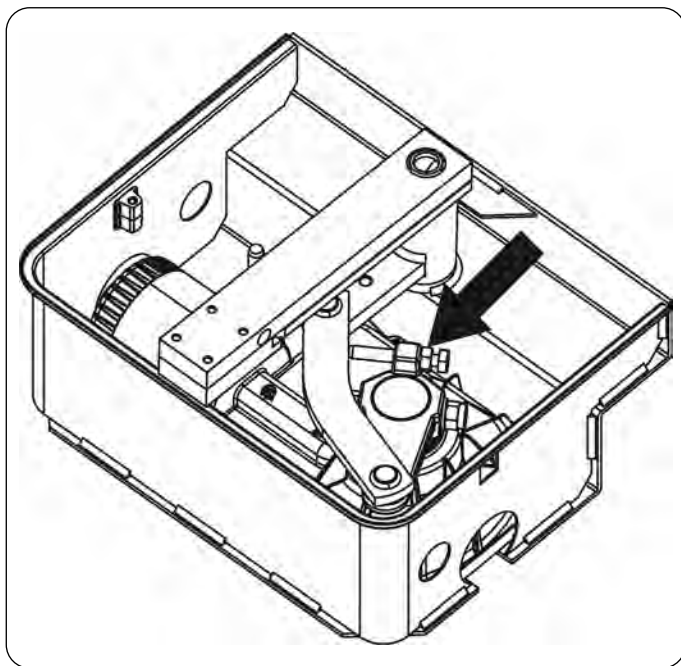
VULCAN-24V

BLUE	OPENING / CLOSING
BROWN	CLOSING / OPENING

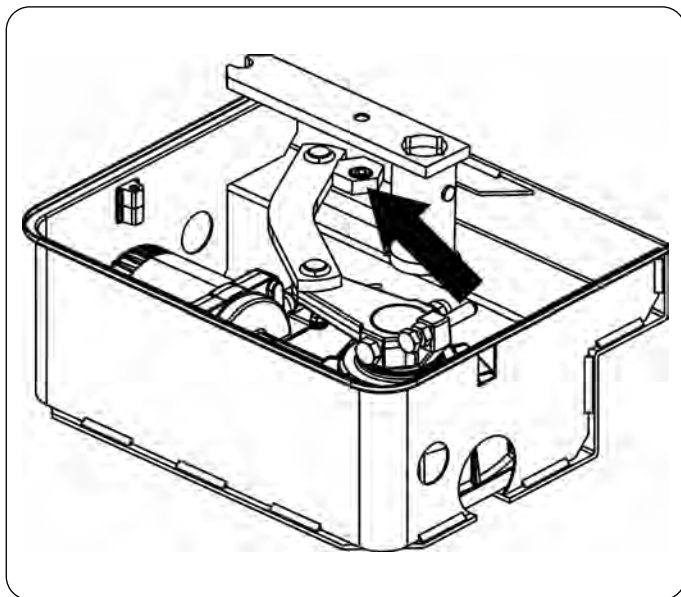


INSTALLATION OF THE STOP LIMIT SWITCHES

1. Place the gate in the maximum closed position, and then attach the limit switch screw as shown in the figure.



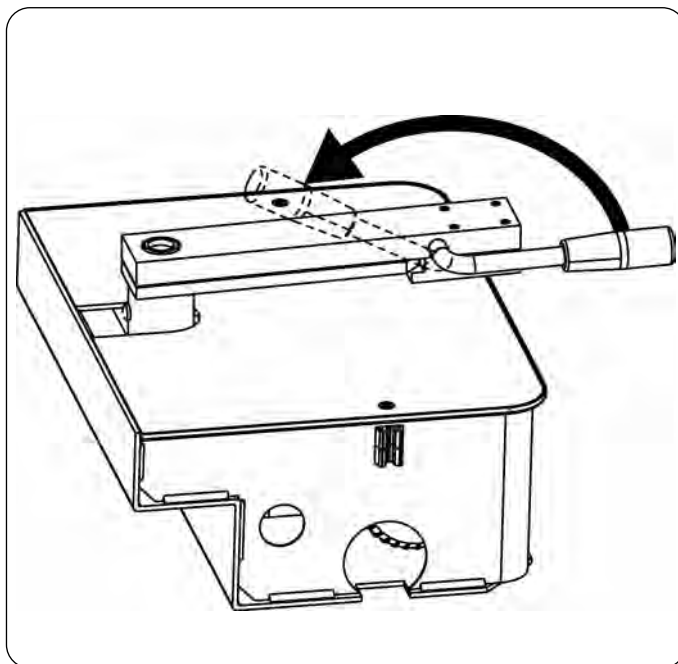
2. Place the gate in the maximum open position, and then attach the limit switch nut as shown in the figure, and tighten the screw.



EMERGENCY UNBLOCKING

In the case of a power failure, the gate can be unblocked mechanically by operating the motor.

Insert the supplied unblocking lever and rotate 180° clockwise. Automation will be automatically restored the first time the motor is operated.



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