



SEA[®]
Sistemi Elettronici
di Apertura Porte e Cancelli

JOINT



INSTALLATION MANUALS AND SAFETY INFORMATION

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PERIODICAL MAINTENANCE

1) Check the oil level in the hydraulic/oil-bath operators (transparent cap placed in the Products)
2) Change the oil in case of low level
3) Check the release function
4) Check the fixing screws
5) Check the integrity of the connection cables
6) Check the function and the limit switch condition in opening and closing
7) Check for all corroded parts and replace them
8) Check the robustness and the stability of the gate; particularly the leaning and/or rotation points of the gate (hinges)
9) Check the operating of all accessories. Especially the functioning of all safety devices and reversing sensors



All the above described operations MUST be made exclusively by an authorized installer.



MECHANICAL INSTALLATION

1. Features and specifications

Jointed swing operator pad mounted for residential/commercial use.

1. Electronic control unit
2. Hydraulic unit
3. Ground support (OPTIONAL)
4. Manual release
5. Articulated arm
6. Jack
7. Limit switch

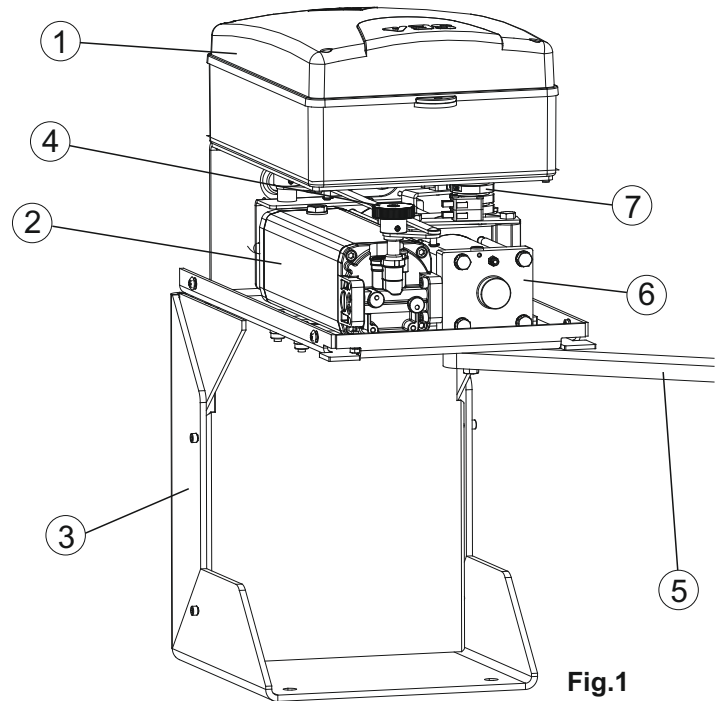


Fig.1

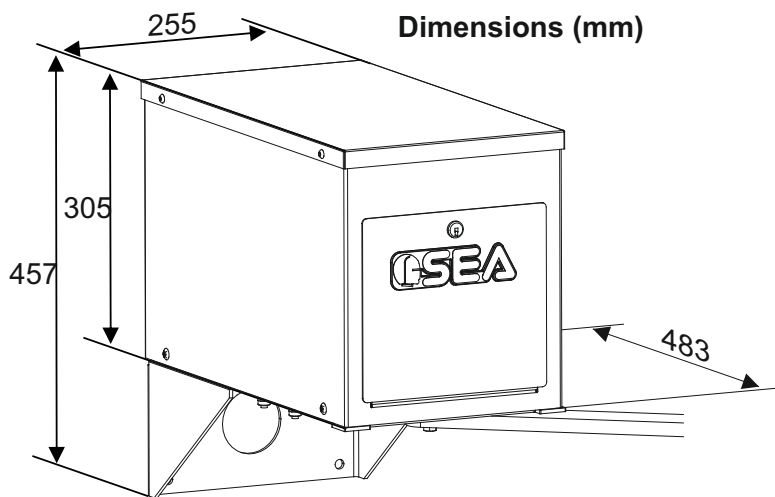


Fig.2

TECHNICAL FEATURES

Gate Speed: 8 - 12 seconds per 90° cycle

Maximum Gate Length: 6 m

Maximum Gate Weight: 455 kg

Maximum Cycles: 250 cycles per day with Sea's Plug-In Transformer. (Gate size 6 m x 2,4 m)

AC Power Supply Wire: 14 gauge or greater landscape lighting cable rated for direct burial and 300 watts at maximum length of 305 m

SPECIFICATIONS	
Power supply	230V
Motor power	280 W
Operation temperature	-20°C to +55°C*
Max. beam length	6 m
Protection class	Ip44
Opening time 90° (sec)	8 - 12 sec
Cycles/hour	40
Max leaf weight	455 kg
Max opening angle (degrees)	100°
Anti-crushing protection	By pass valve
Limit switch	Mechanical/electronic
Slow-down	Electronic

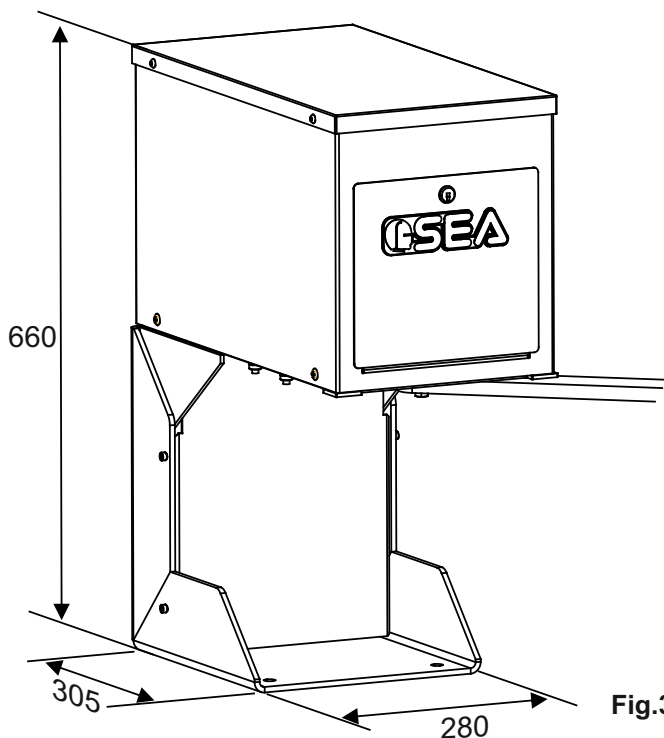


Fig.3



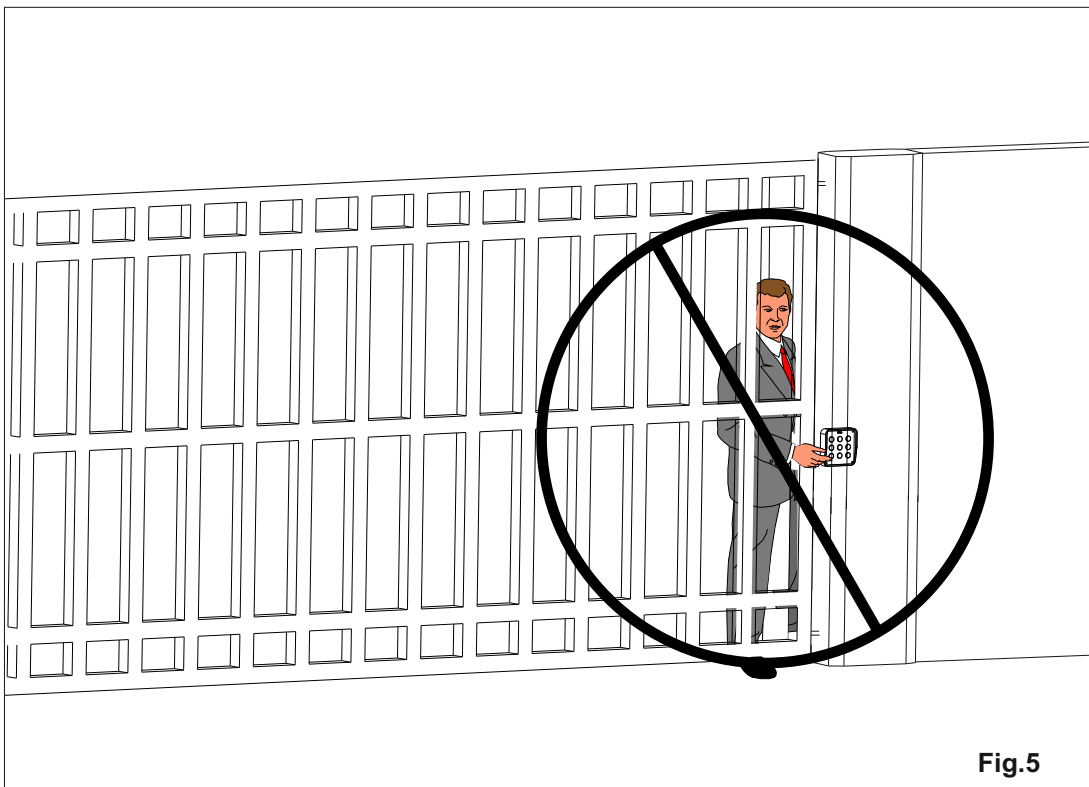
MECHANICAL INSTALLATION

2. Safety operating gate

The Joint 230V is for Single Home Applications
DO NOT Use for Apartment or Condominium Applications.



Owners Must Never Let Pedestrians Cross the Path, Step or Hang on a Moving Gate!



Owners Must Never Mount Any Gate Operating
Device Accessible Through the Gate!

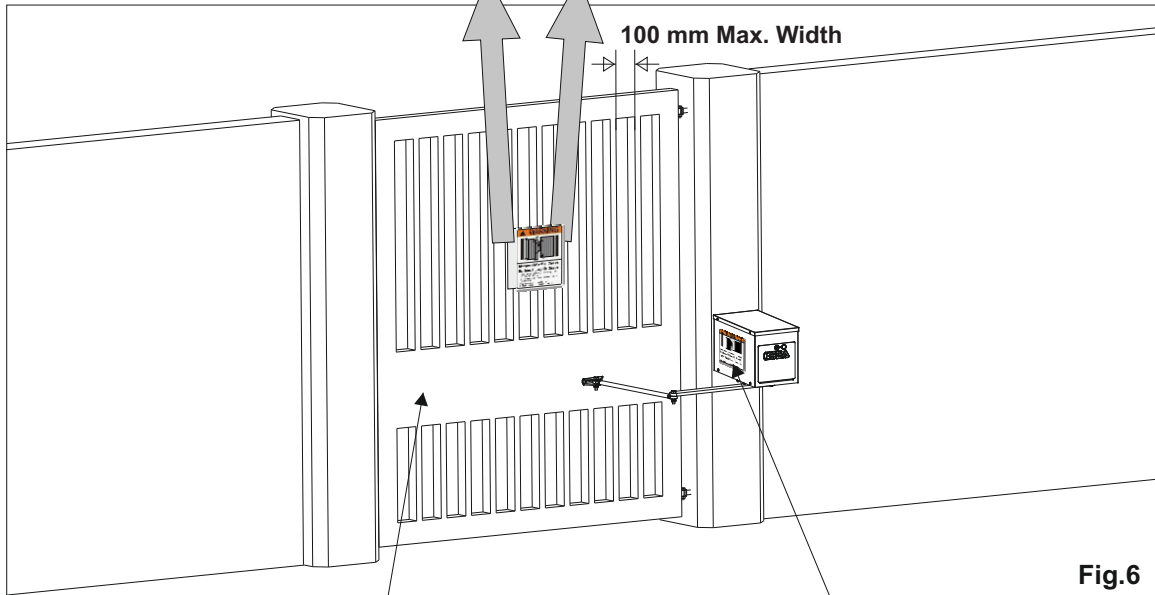


MECHANICAL INSTALLATION

3. Configuration and specification



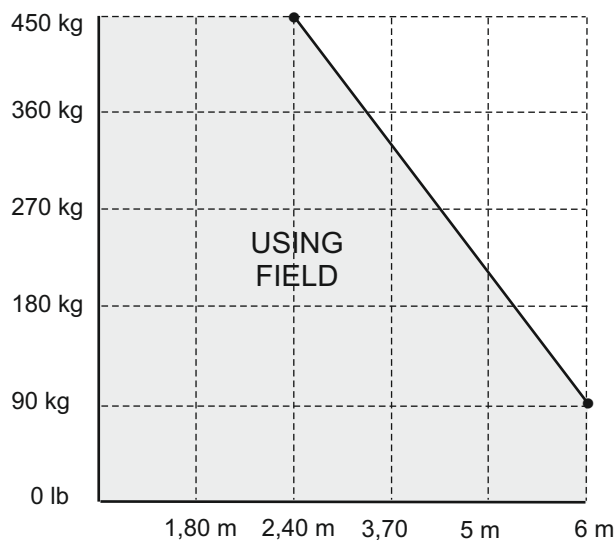
Warning Signs Attached on Both Sides of Gate



Gate Attachment Bar Must Go Completely Across the Gate for Full Strength

Warning Sign Clearly Visible on Operator

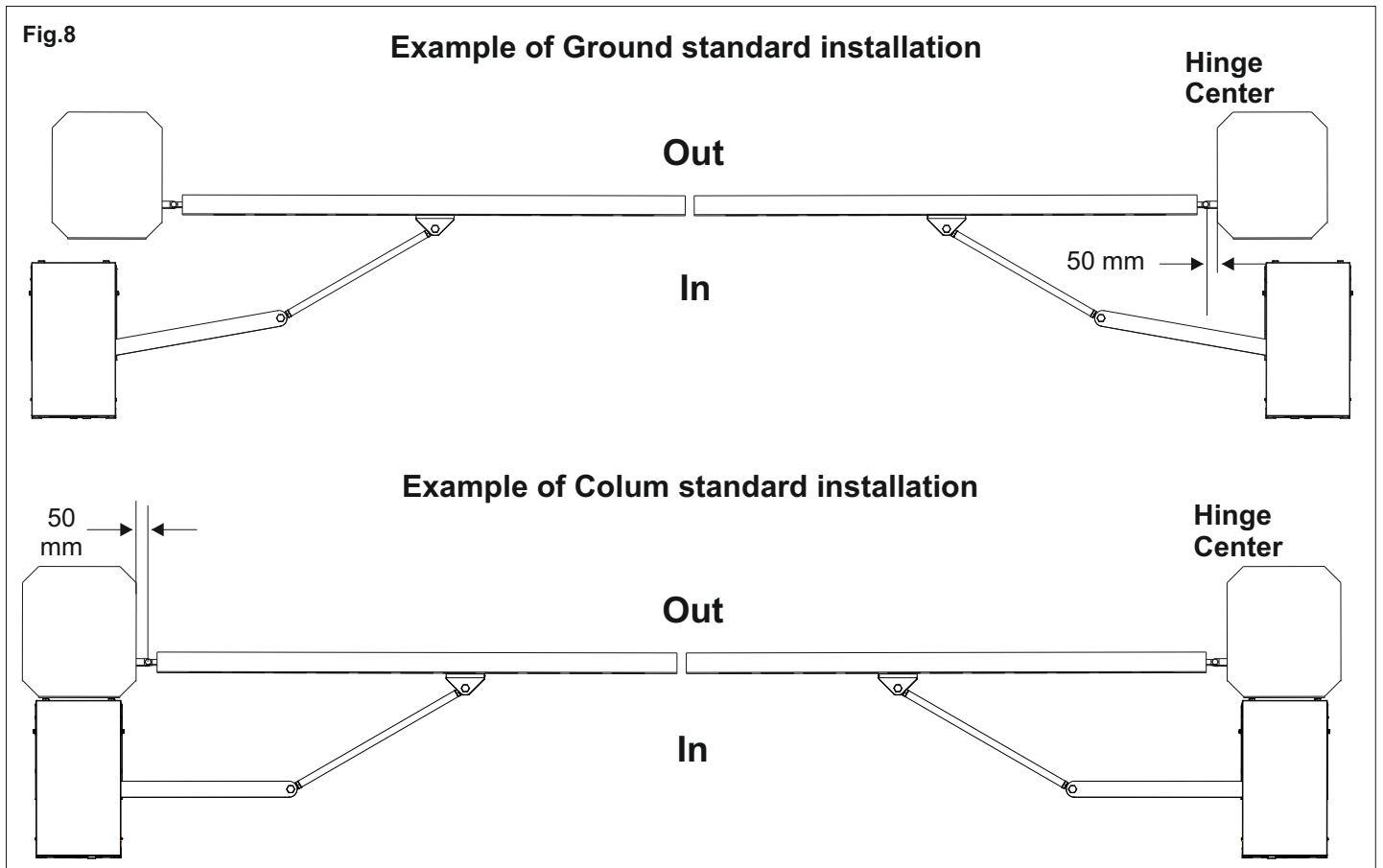
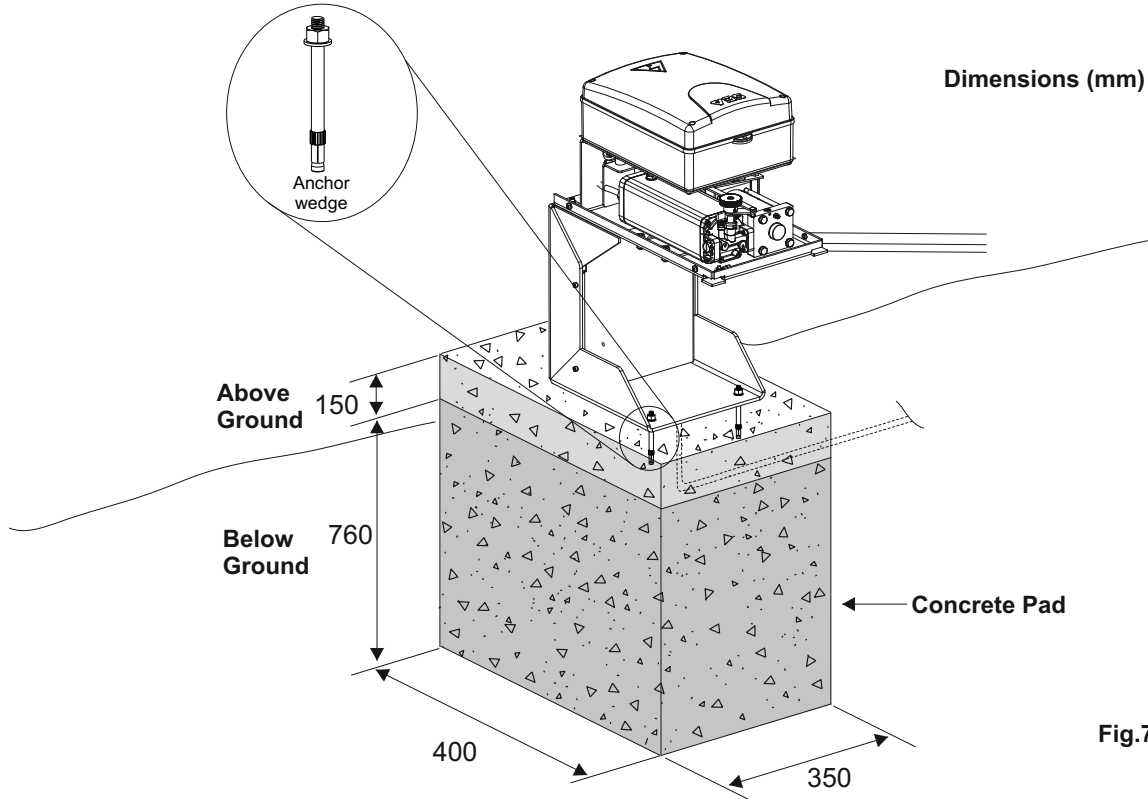
DRAWING LEAVES DIMENSIONS





MECHANICAL INSTALLATION

4. Concrete pad and gate attachment





MECHANICAL INSTALLATION

5. Standard installation

Sample Standard Installation is Shown on Previous Page.

Fig.9

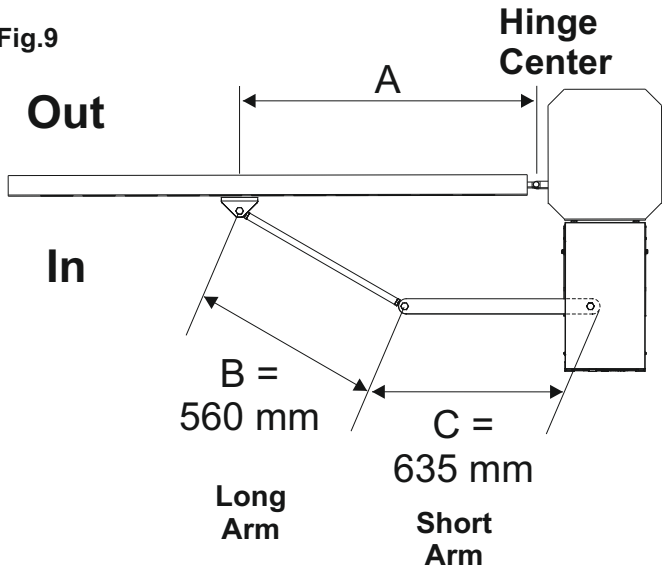
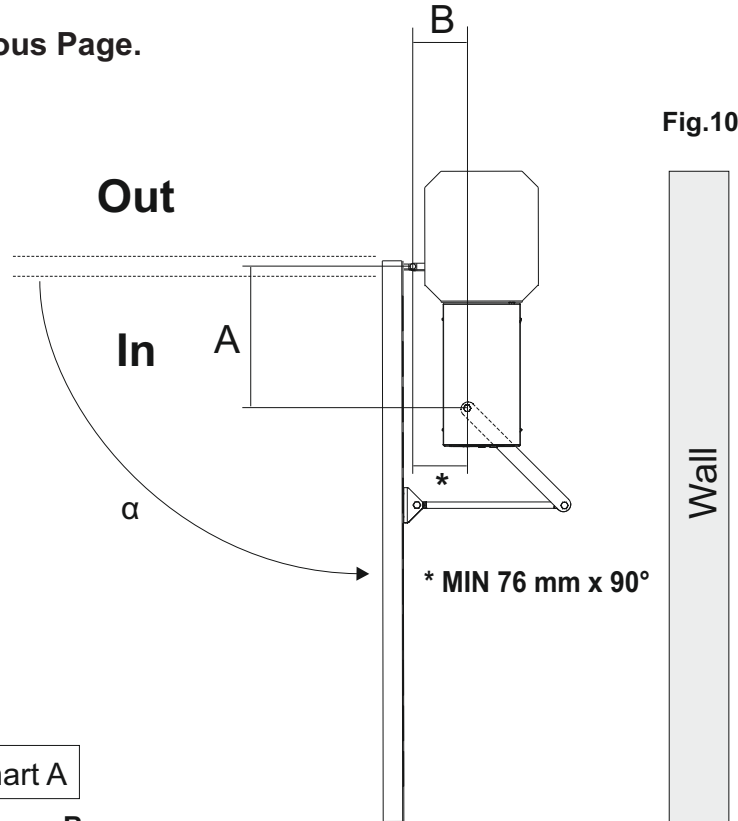


Fig.10



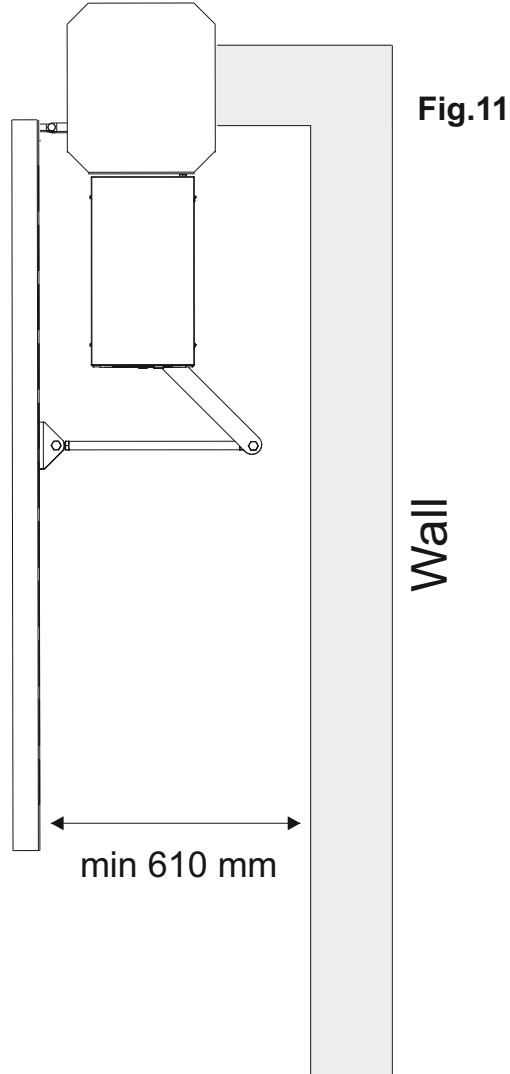
Caution: If the gate is longer than 5,5 m, follow **Chart A : A-2.**

Chart A

	L (mm)	A (mm)	B (mm)	α
1	1030	300	100	90°
2	980	300	150	95°
3	930	300	200	100°
4	1020	350	100	90°
5	970	350	150	95°
6	920	350	200	100°
7	1000	400	100	90°
8	950	400	150	95°
9	900	400	200	100°
10	980	470	100	90°
11	930	470	150	95°
12	880	470	200	100°



MECHANICAL INSTALLATION





MECHANICAL INSTALLATION

6. Gate arm installation

Fig.12

**Incorrect
Installation**

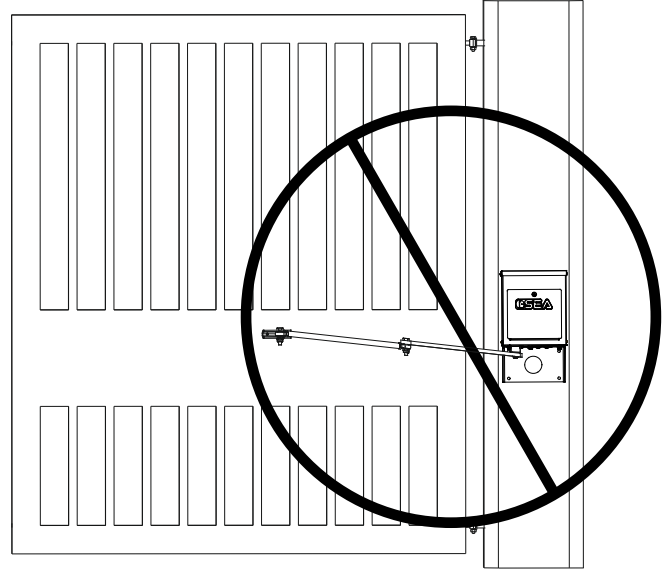
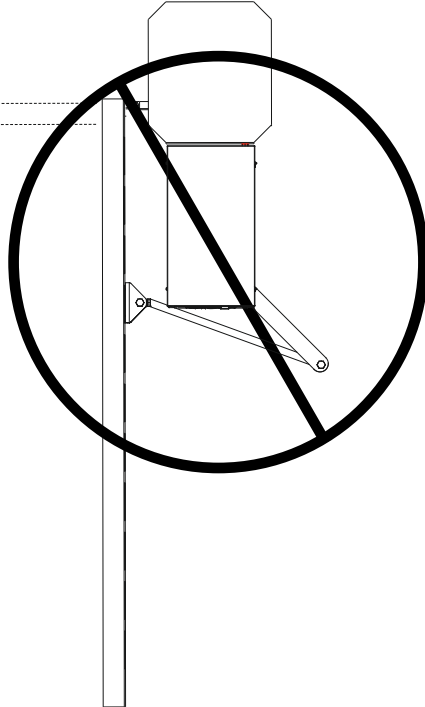
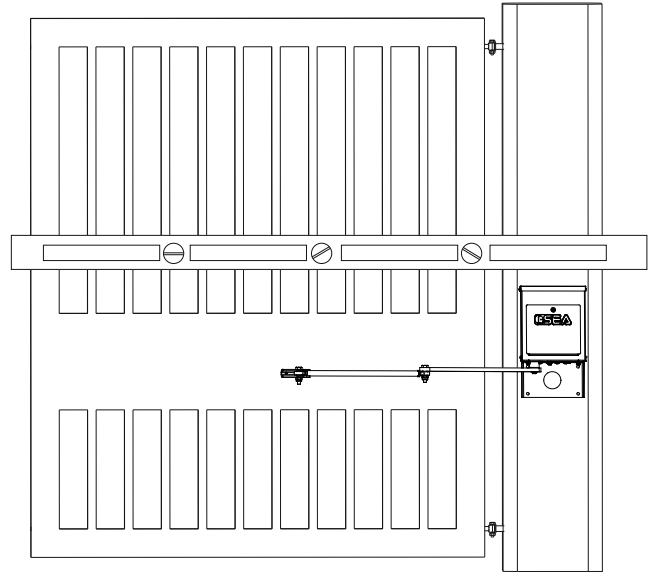
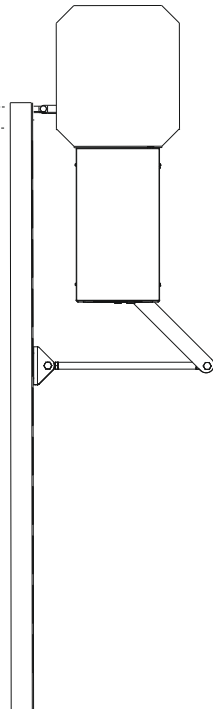


Fig.13

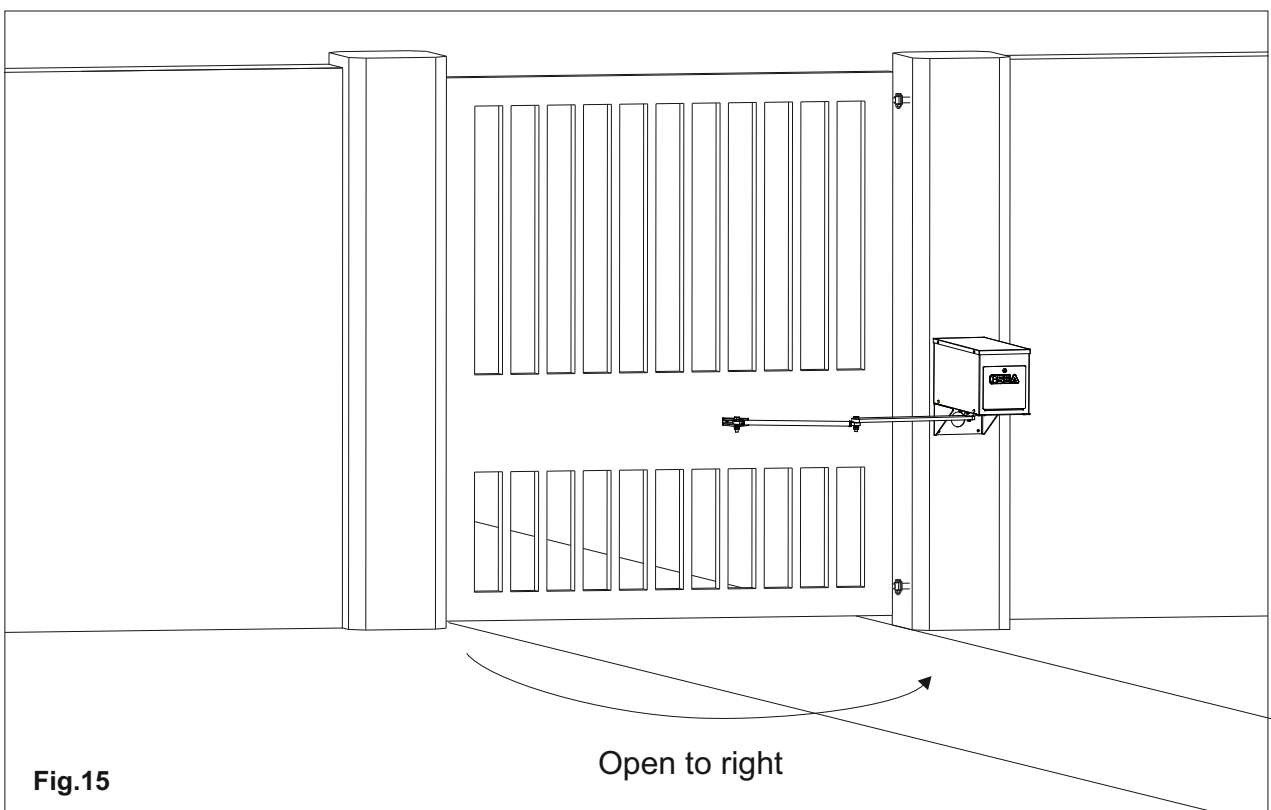
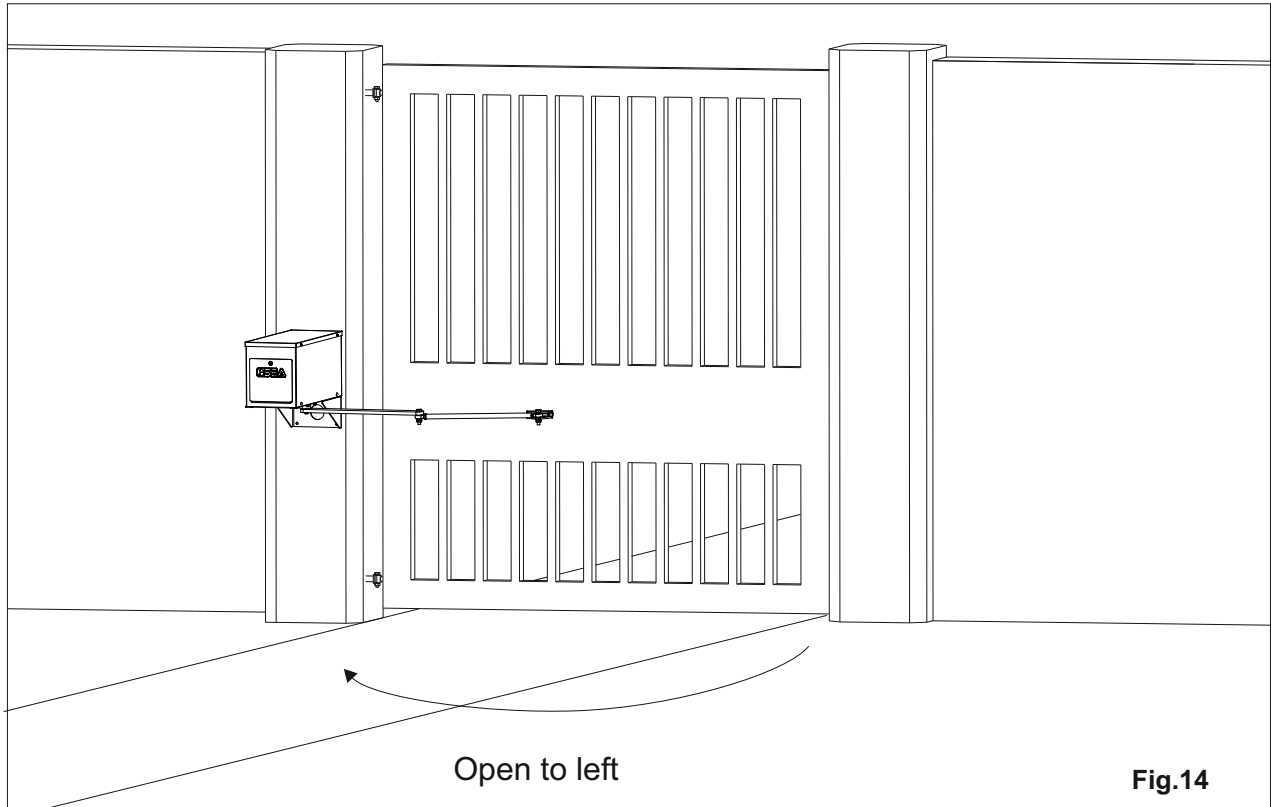
**Correct
Installation**





MECHANICAL INSTALLATION

7. Gate movement direction





MECHANICAL INSTALLATION

8. Left operator mounting

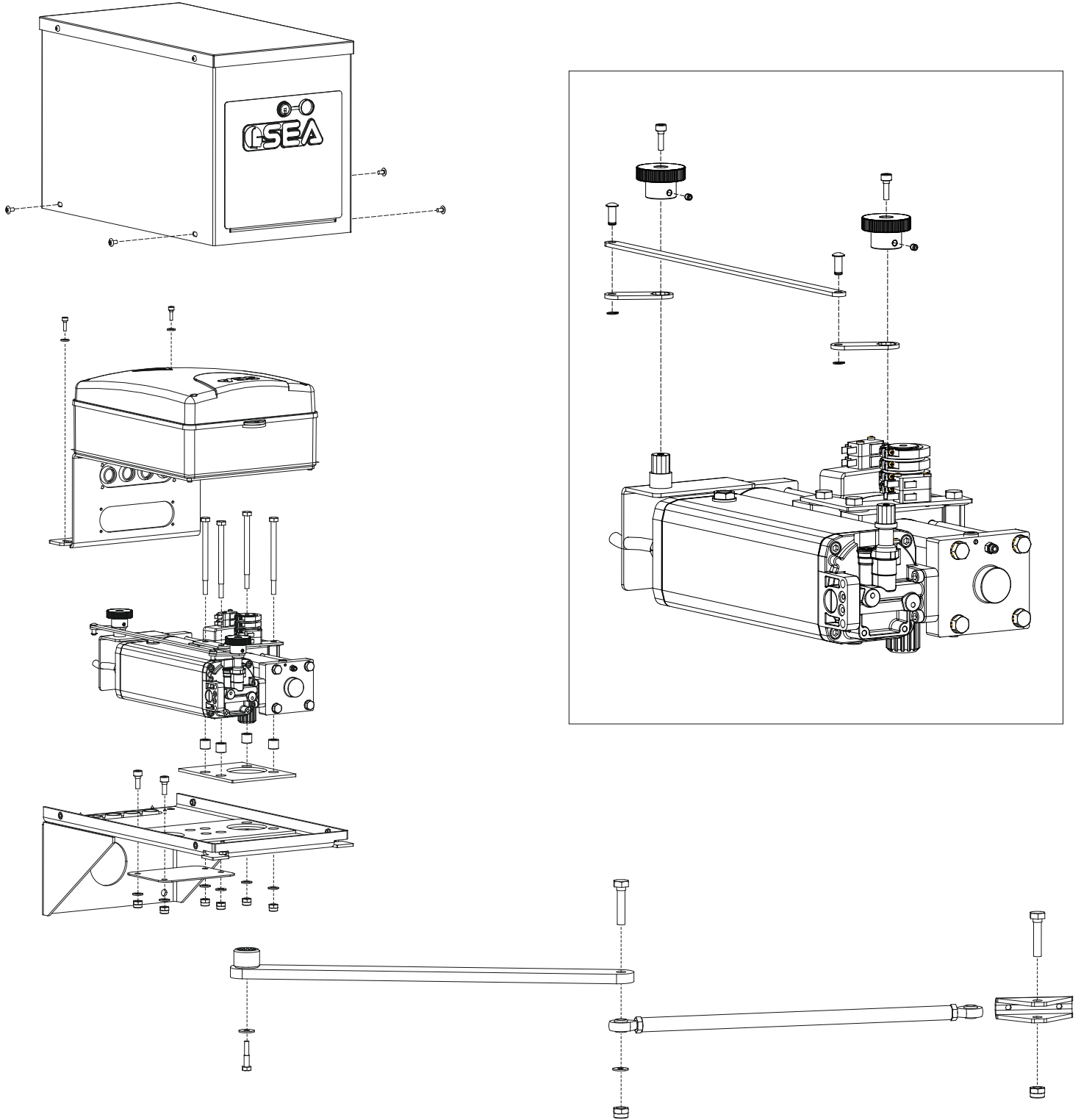
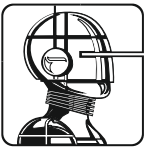


Fig.16



MECHANICAL INSTALLATION

9. Right operator mounting

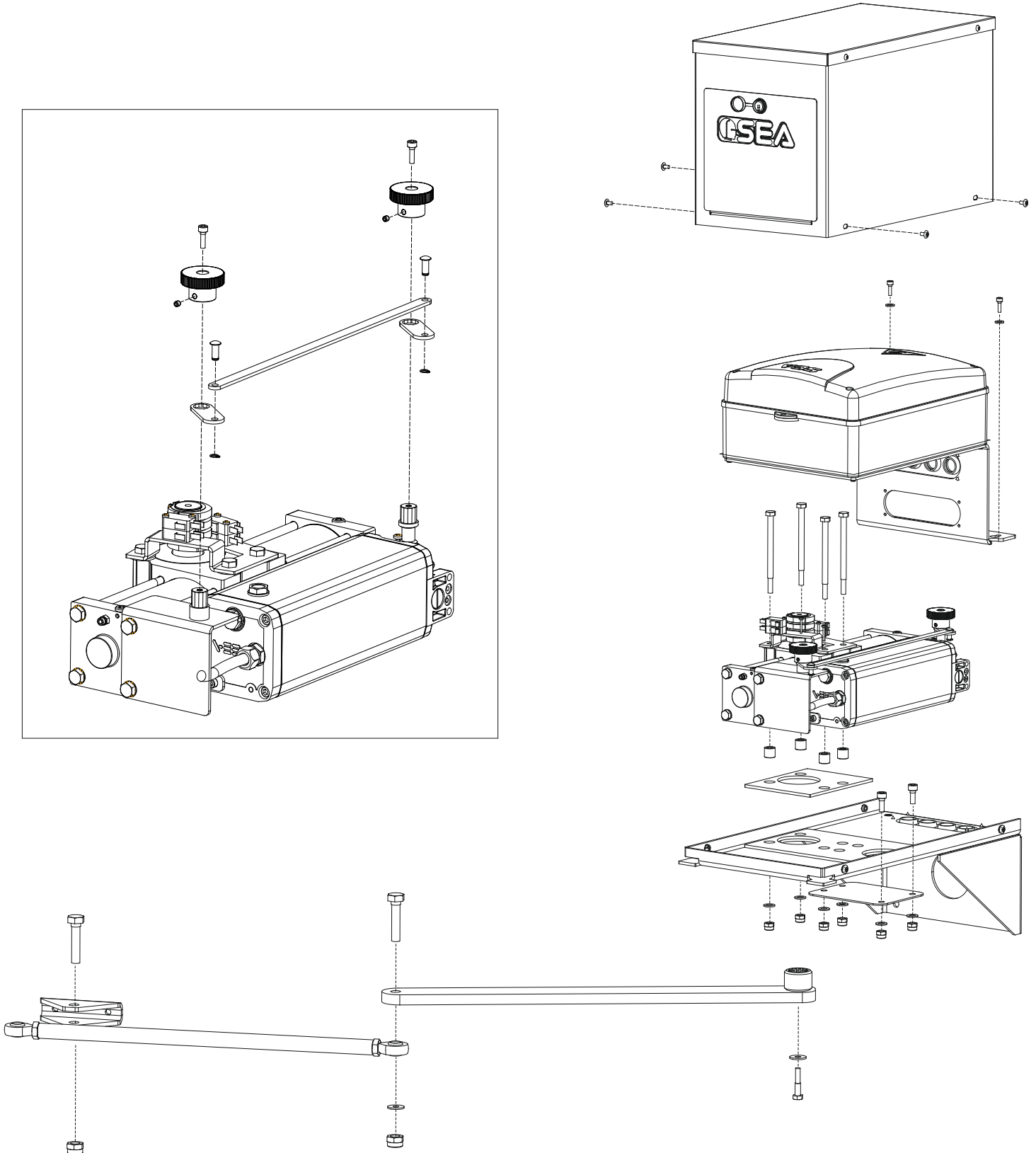


Fig.17



MECHANICAL INSTALLATION

10. Mounting plate

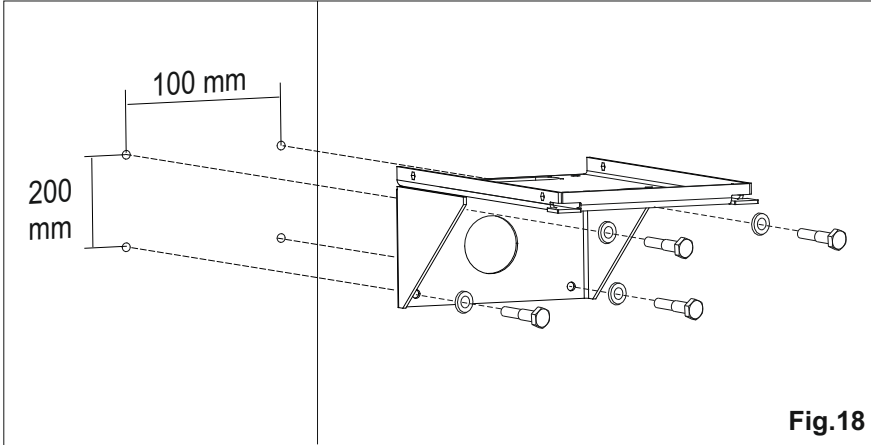


Fig.18

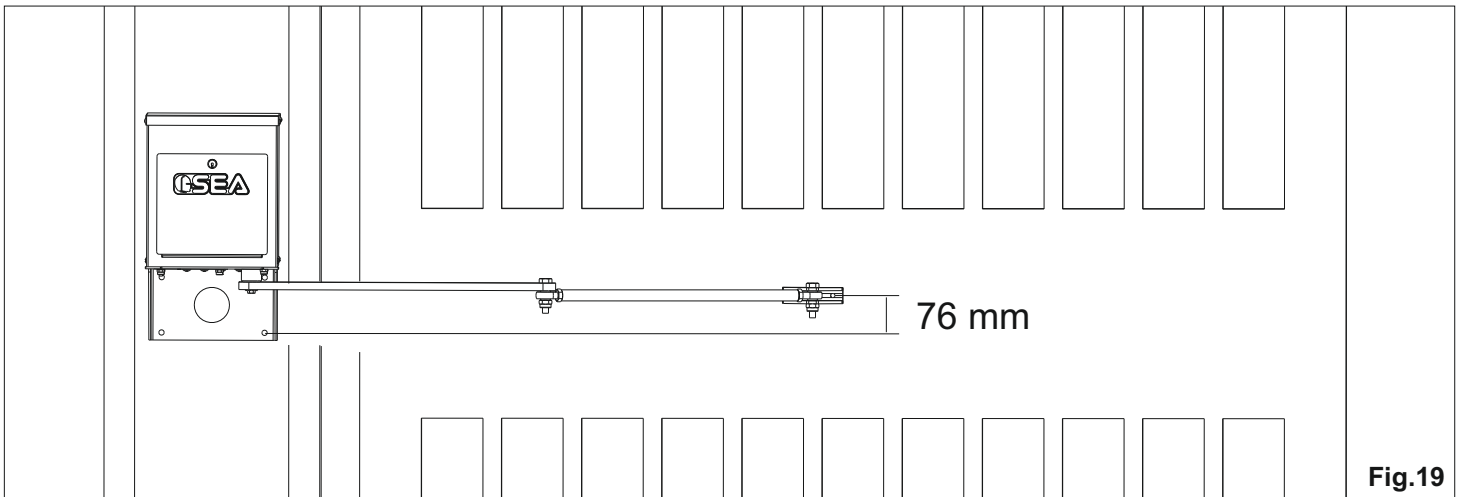


Fig.19

11. Torque adjustment (By-Pass Valves)

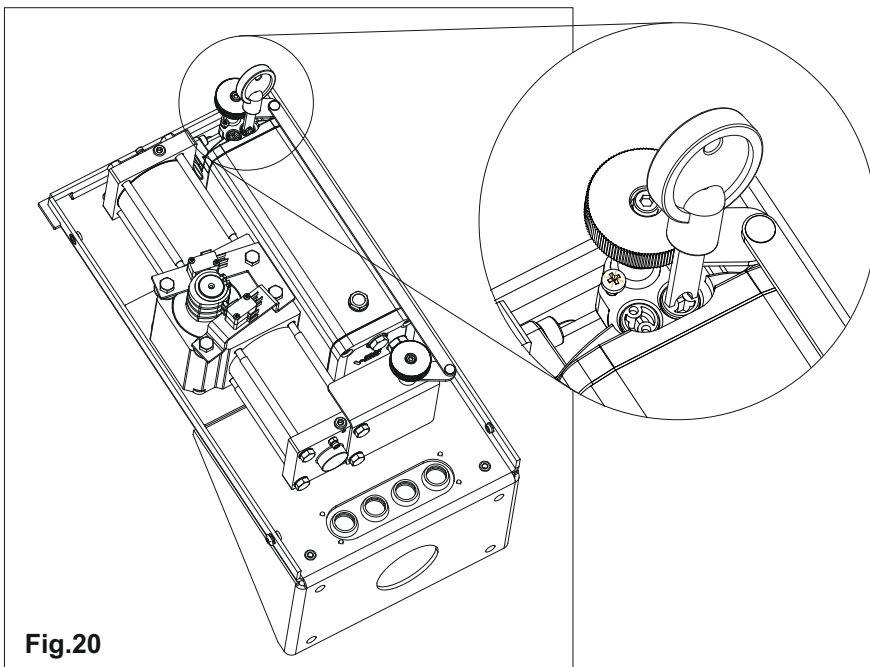
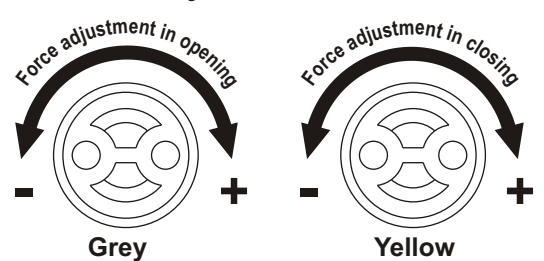


Fig.20

By-Pass Valves

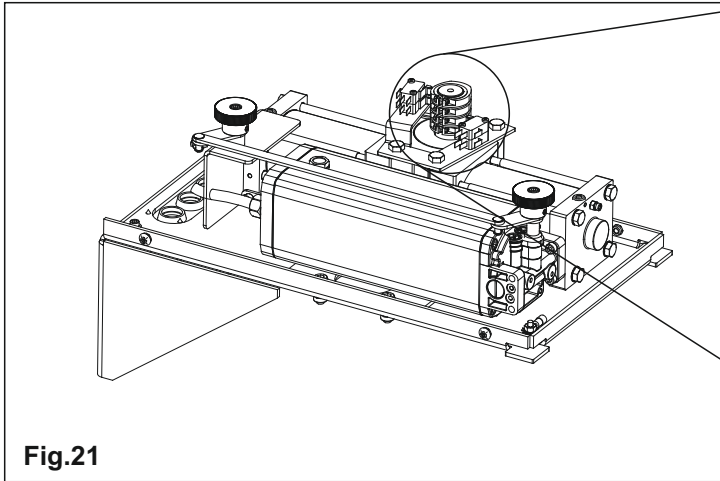


Regulate the opening and closing forces of the gate respecting the force diagram. THE MAXIMUM THRUST FORCE DURING THE MOVEMENT, MEASURED AT THE LEADING EDGE OF LEAF, IS SUBJECTED TO THE LAWS IN FORCE IN THE COUNTRY WHERE THE GATE IS INSTALLED.

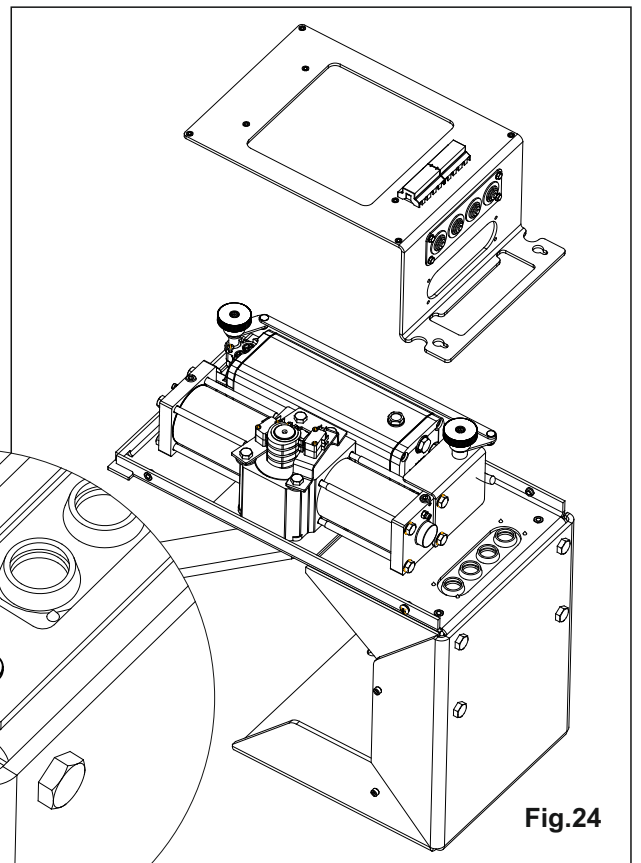
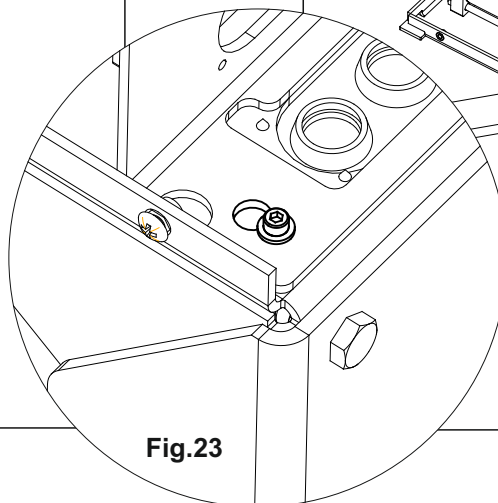
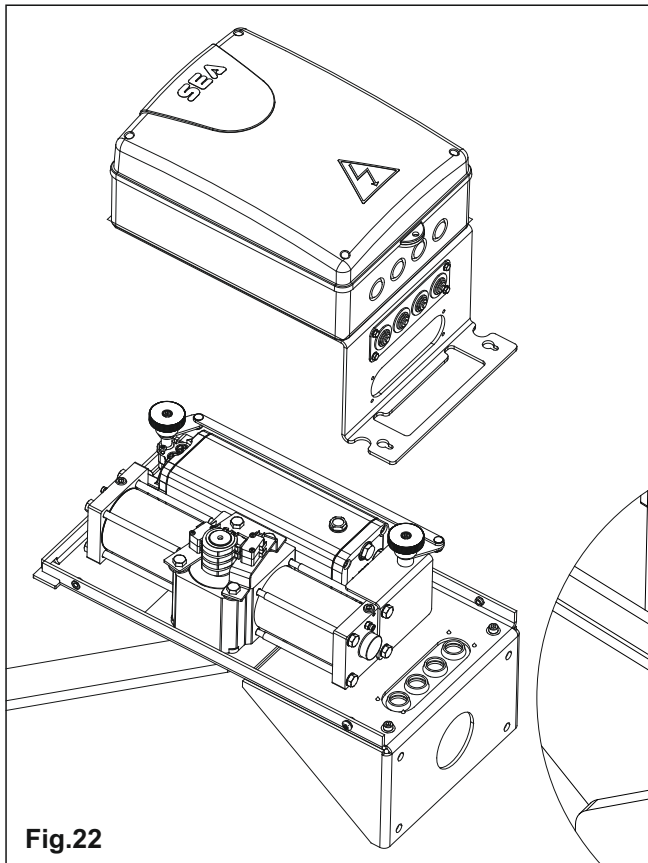


MECHANICAL INSTALLATION

12. Limit switches



13. Control unit support





MECHANICAL INSTALLATION

14. Manual release system

Fig.25

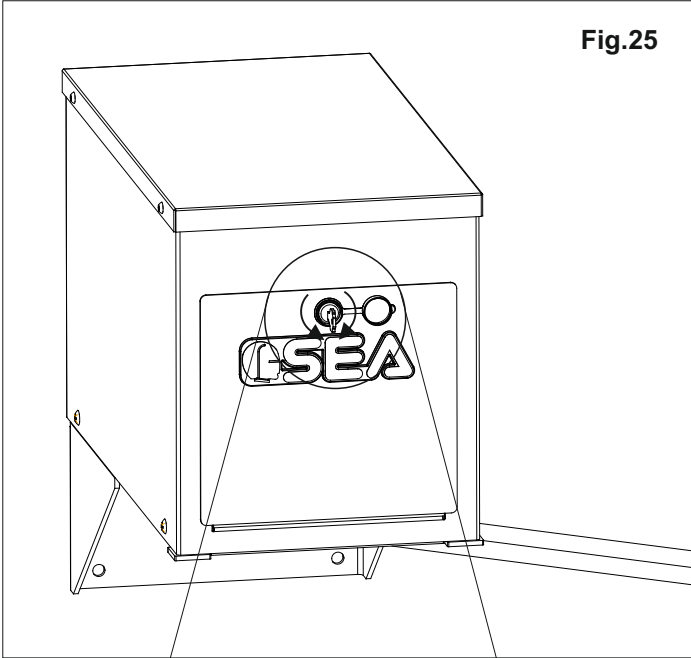
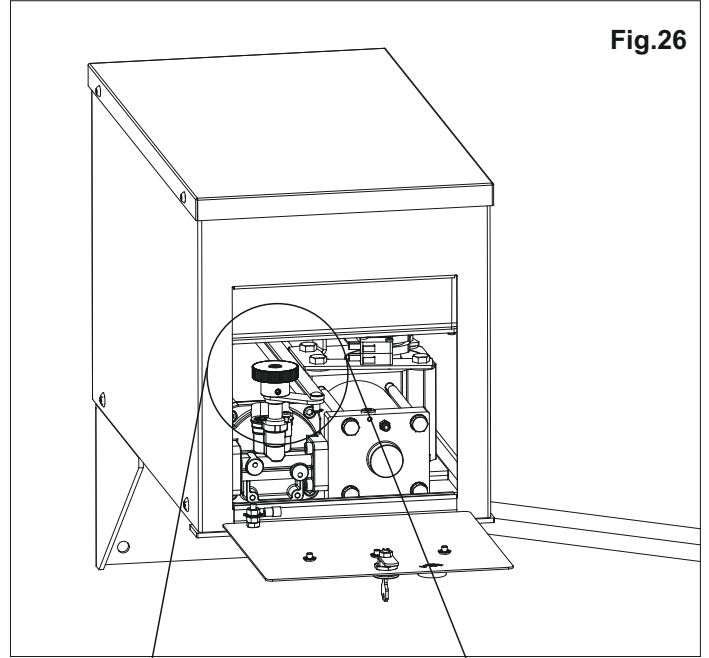


Fig.26





GENERAL NOTICE FOR THE INSTALLER AND THE USER

1. Read carefully these **Instructions** before beginning to install the product. Store these instructions for future reference
2. Don't waste product packaging materials and /or circuits.
3. This product was designed and built strictly for the use indicated in this documentation. Any other use, not expressly indicated here, could compromise the good condition/operation of the product and/or be a source of danger. SEA S.p.A. declines all liability caused by improper use or different use in respect to the intended one.
4. The mechanical parts must be comply with Directives: Machine Regulation 2006/42/CE and following adjustments), Low Tension (2006/95/CE), electromagnetic Consistency (2004/108/CE) Installation must be done respecting Directives: EN12453 and En12445.
5. Do not install the equipment in an explosive atmosphere.
6. SEA S.p.A. is not responsible for failure to observe Good Techniques in the construction of the locking elements to motorize, or for any deformation that may occur during use.
7. Before attempting any job on the system, cut out electrical power and disconnect the batteries. Be sure that the earthing system is perfectly constructed, and connect it metal parts of the lock.
8. Use of the indicator-light is recommended for every system, as well as a warning sign well-fixed to the frame structure.
9. SEA S.p.A. declines all liability as concerns the automated system's security and efficiency, if components used, are not produced by SEA S.p.A..
10. For maintenance, strictly use original parts by SEA.
11. Do not modify in any way the components of the automated system.
12. The installer shall supply all information concerning system's manual functioning in case of emergency, and shall hand over to the user the warnings handbook supplied with the product.
13. Do not allow children or adults to stay near the product while it is operating. The application cannot be used by children, by people with reduced physical, mental or sensorial capacity, or by people without experience or necessary training. Keep remote controls or other pulse generators away from children, to prevent involuntary activation of the system.
14. Transit through the leaves is allowed only when the gate is fully open.
15. The User must not attempt to repair or to take direct action on the system and must solely contact qualified SEA personnel or SEA service centers. User can apply only the manual function of emergency.
16. The power cables maximum length between the central engine and motors should not be greater than 10 m. Use cables with 2,5 mm² section. Use double insulation cable (cable sheath) to the immediate vicinity of the terminals, in particular for the 230V cable. Keep an adequate distance (at least 2.5 mm in air), between the conductors in low voltage (230V) and the conductors in low voltage safety (SELV) or use an appropriate sheath that provides extra insulation having a thickness of 1 mm.



SEA[®]
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International registered trademark n. 804888



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