BULL

INSTALLATION MANUAL

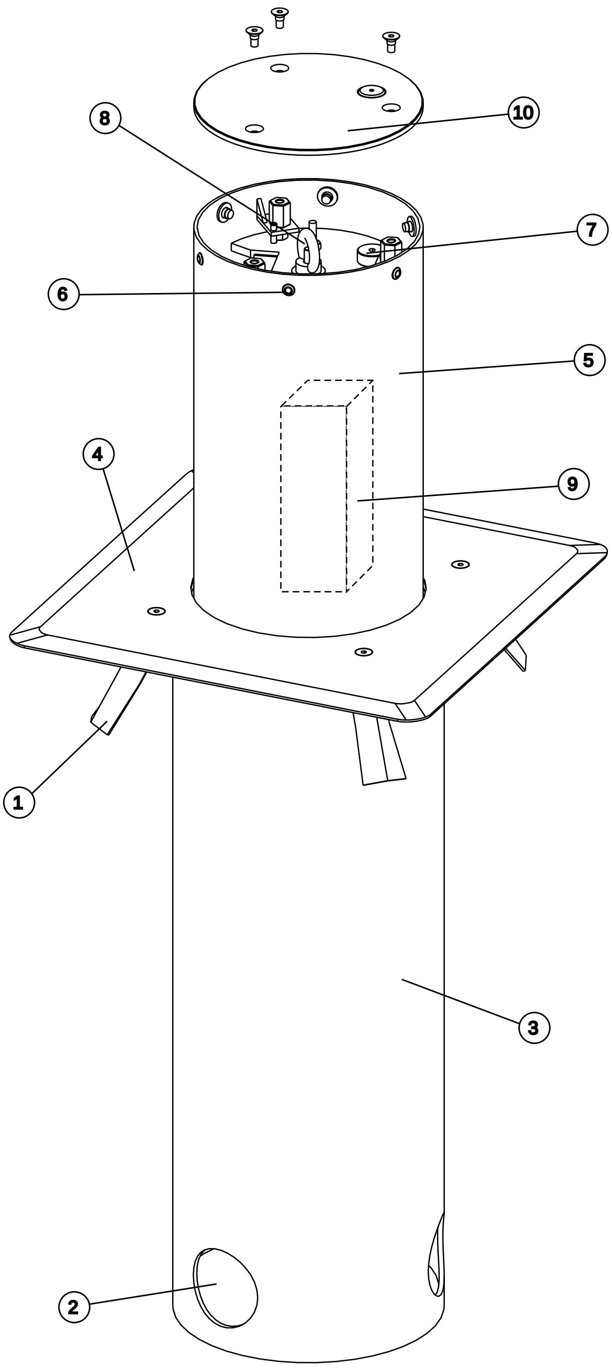
(cod.12500005)

ENGLISH

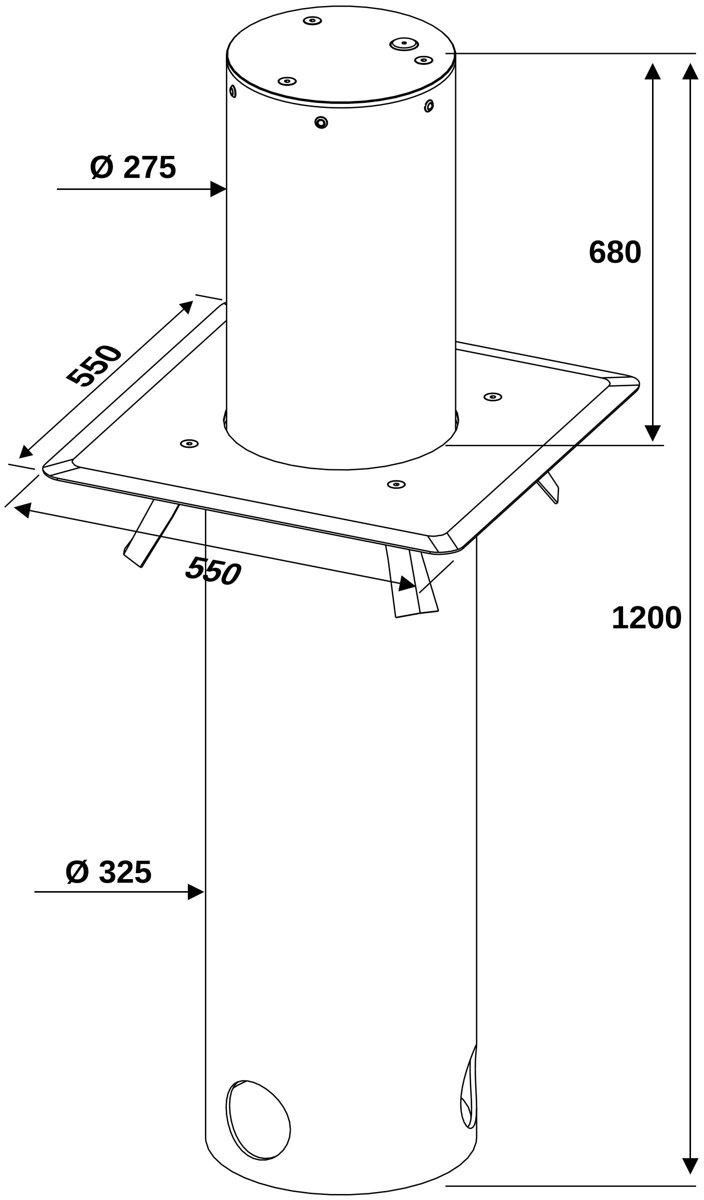
BULL is a bollard designed for the management of traffic areas, parkings and protection of public and private accesses.
It has an hydraulic system is engineered in our factory to achieve minimum noise and maximum long term reliability.
The hydraulic unit is self contained for ease of installation. The release mechanism allows for manual operation in case of power failure.
BULL is also equipped with 24V LED lights and audible alarm.

MAIN PARTS NAMES

1 Foundation plate
2 Hole for electric cables passage
3 Underground cylinder
4 Manhole cover
5 Movable column
6 Light signals
7 Release system
8 Lifting hook
9 Hydraulic unit
10 Movable manhole cover



DIMENSIONS (mm)



HYDRAULIC UNIT	
Hydraulic pump capacity	4 liters/min
Medium working pressure	2.2 MPA (22 bar)
Maximum adjustment pressure	4.5 MPA (45 bar)
Working temperature	-20°C +55°C
Hydraulic oil	SEA
Protection degree	IP55

HYDRAULIC PISTON	
Exit time of the rod	6 seconds
Working stroke of the rod	720 mm
Rod diameter	16 mm
Piston diameter	30 mm
Max tractive force during rod extension	275 Kg
Max tractive force during rod retraction	147 Kg
Obstruction light (led) power supply	24V

ELECTRIC MOTOR	
Power supply	230Vac - 50 Hz
Absorbed current	1.65 A
Absorbed motor power	330 W
Capacitor	12.5 mF
Rotation speed	2800 rpm
Frequency of use	30%

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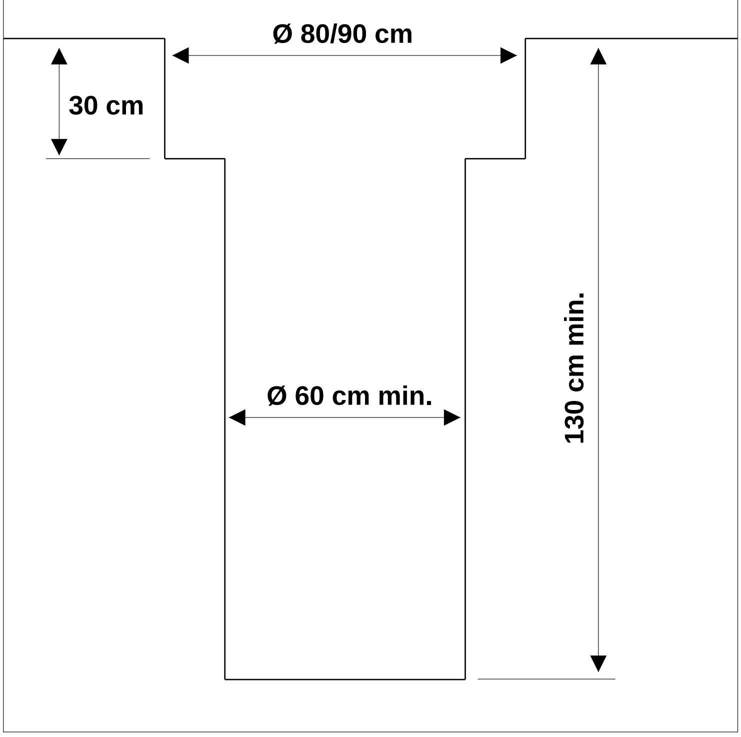
1. DIGGING

1.1. Proceed with excavation using the measurements that you find in Fig. 1 one. Dig in the ground where you intend to install the bollard

Fig. 1

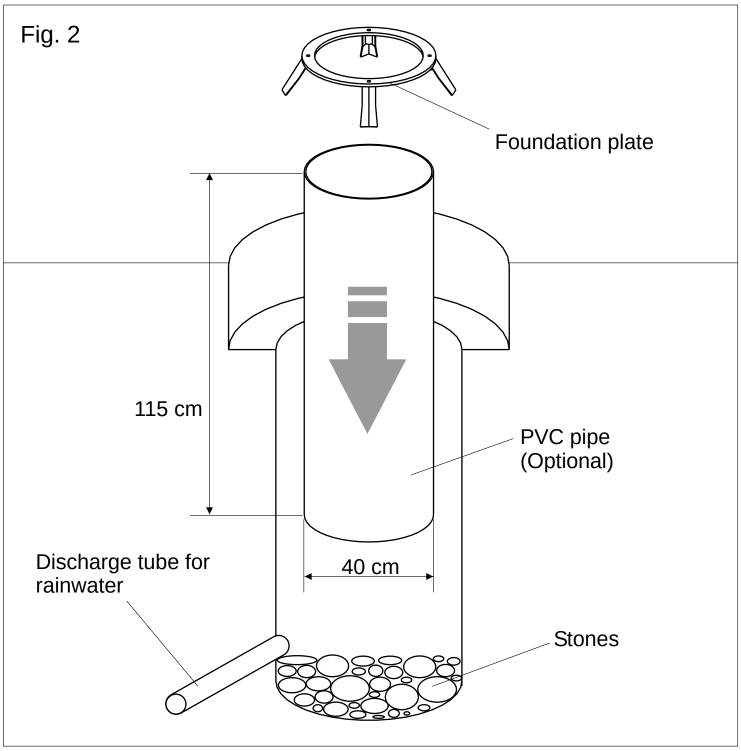


1.2. Fill the hole with stones for 30 cm to allow for water drainage.

1.3. Intall a plastic flexible Duct (40 mm diameter) to the mains sewer pipe, if possible.

1.4. Insert a PVC (optional) pipe (external diameter min 40 mm) in the hole and fit the foundation plate. (Fig. 2) 12710350

Fig. 2



1.5. Insert a flexible duct into the PVC pipe to allow for passage of the electric supply cables.

1.6. Fill all the space between ground and PVC pipe with high strength concrete.

1.7. Before the concrete has fully set, make sure that the PVC pipe is perfectly vertical and that the foundation plate in perfectly horizontal. Use a level for this operation.

NOTICE: the foundation plate must be positioned 10 mm max beneath finished floor level. (Fig. 3).

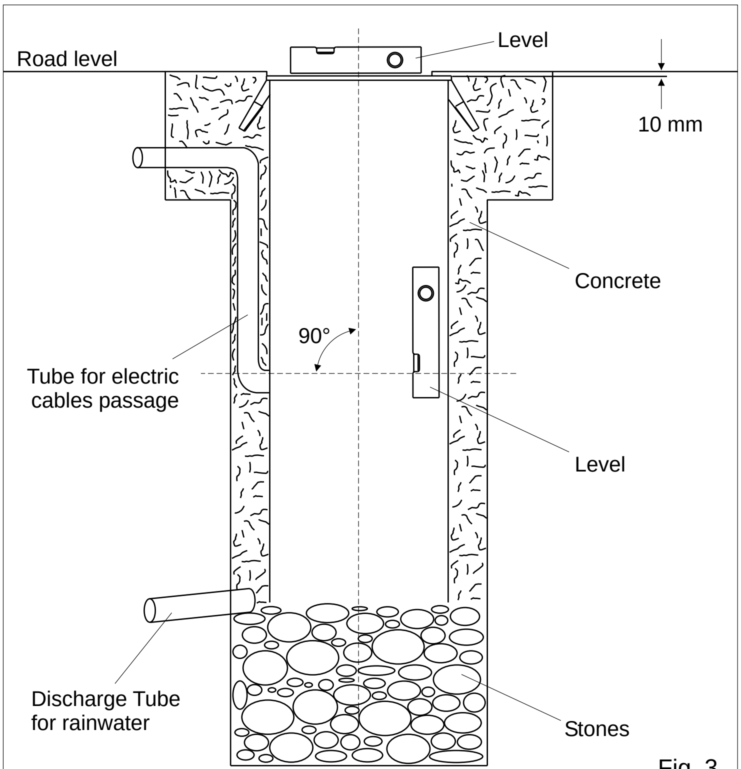


Fig. 3

2. BOLLARD INSERTION

2.1. Remove the movable access cover unscrewing the three screws as in Fig. 4.

This operation allows access to the lifting hook which must be used to insert the bollard in the housing pipe that has been previously prepared.

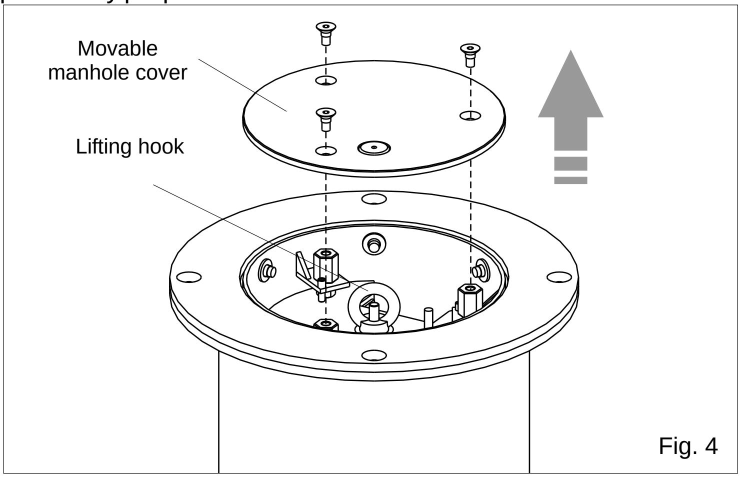
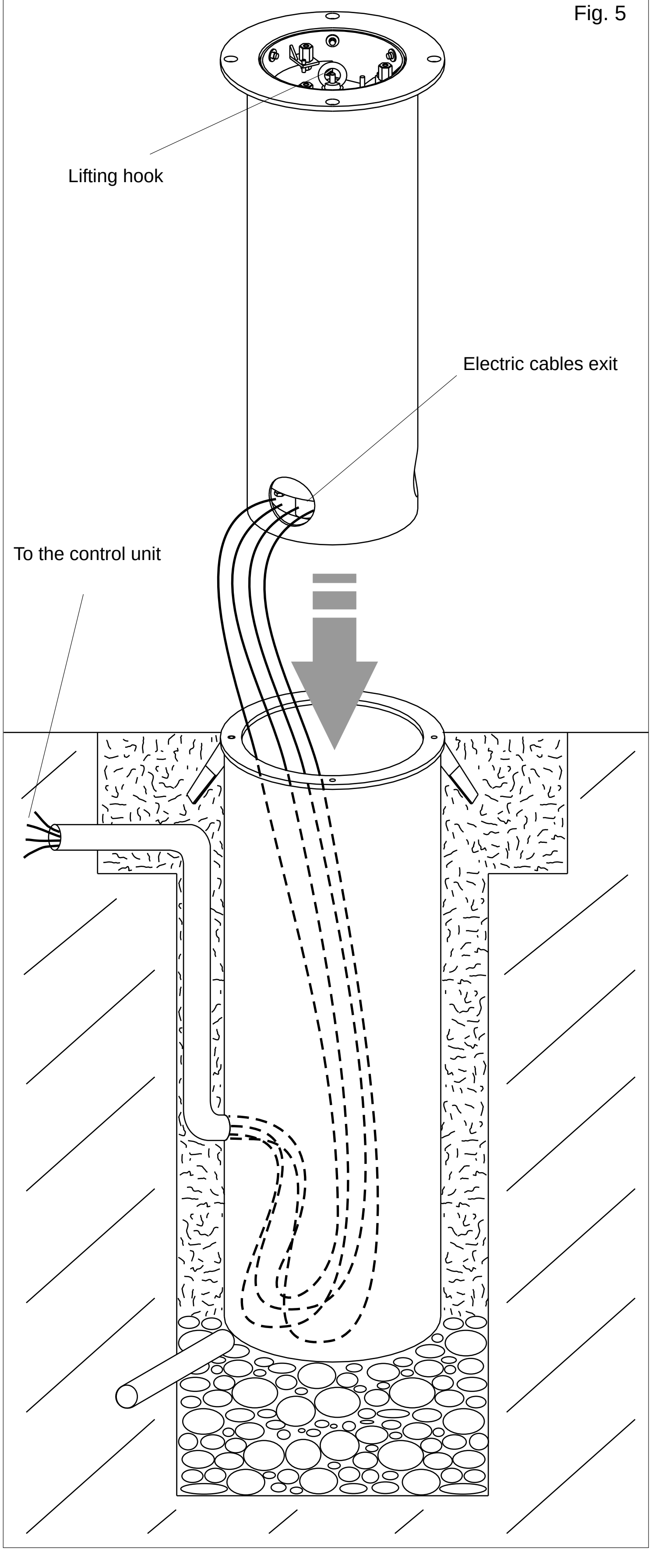


Fig. 4

2.2. Using the lifting hook, insert the bollard in the housing (Fig. 5).
NOTICE: make the electric cables pass carefully in the appropriate pipe without shortening or stretching them.

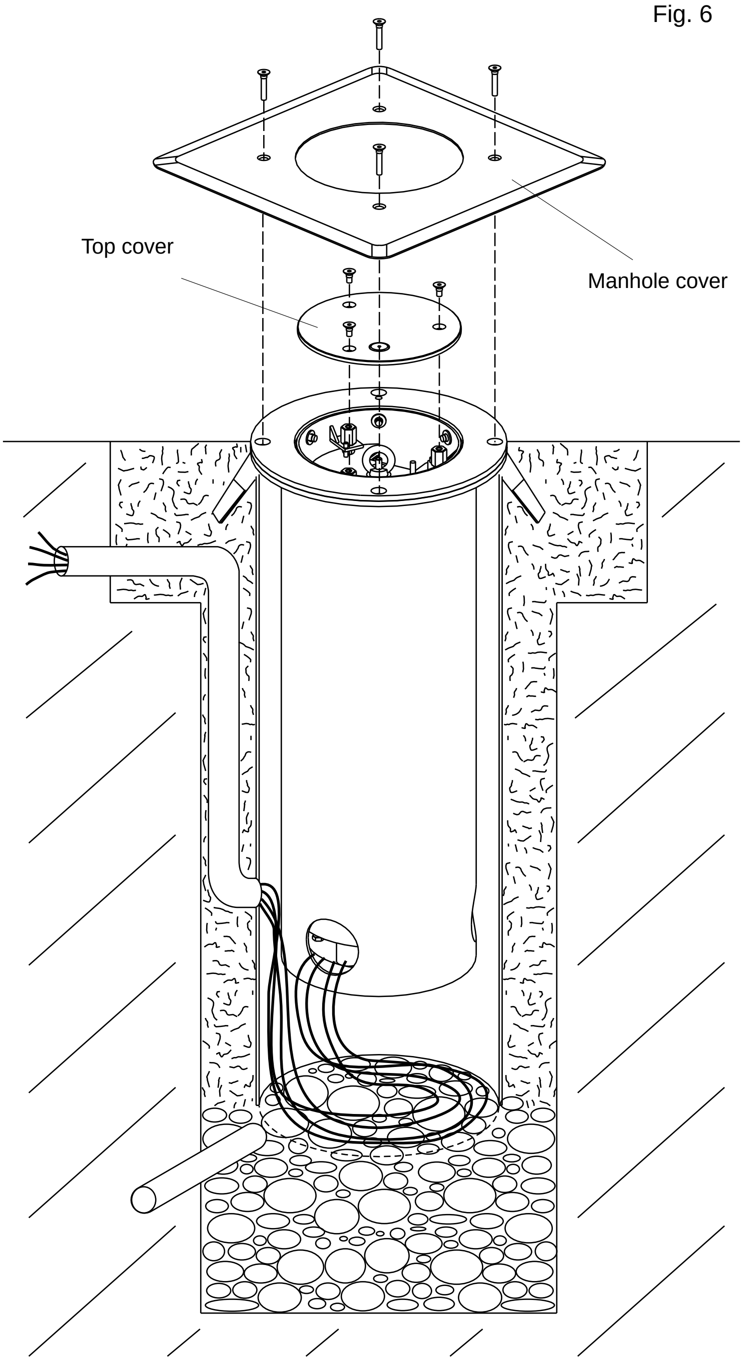
Fig. 5



2.3. Lower the bollard until it touches the foundation plate, taking care that the electric cables are positioned at the bottom of the tube (Fig. 6)

2.4. Fix the bollard to the foundation plate using the manhole cover and the 4 screws provided (Fig. 6).
Afterward mount the upper manhole cover. (Fig. 6)

Fig. 6



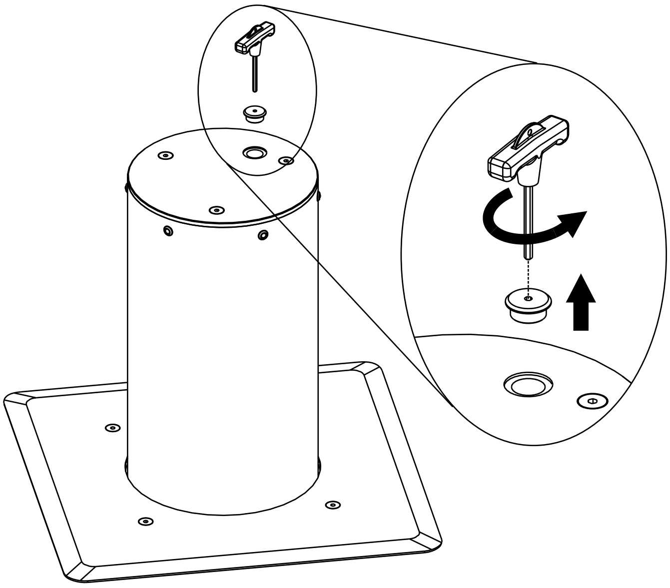
At this point the installation is completed. For electrical connections, refer to the appropriate control unit instruction manual.

3. RELEASE SYSTEM

The manual release system allows you to lower the bollard in case of emergency or power cut.
In order to release the bollard act as follows:

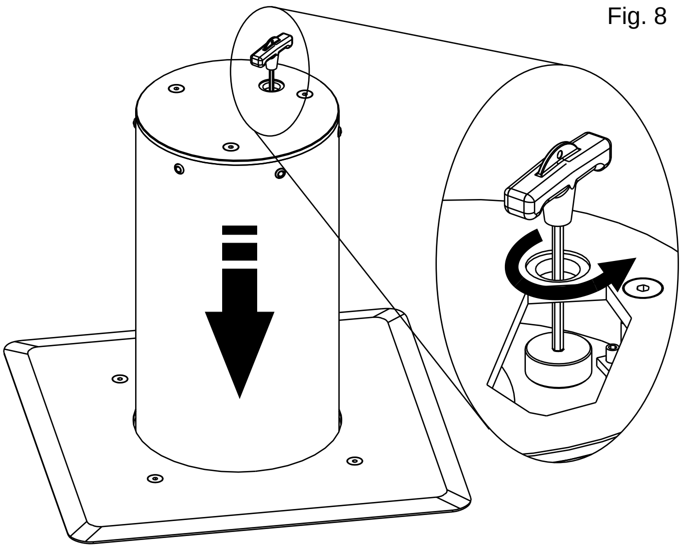
3.1. Unscrew the cover of the release using the appropriate hexagonal key in equipment(Fig. 7).

Fig. 7



3.2. Insert the same key in the release hole and unscrew (rotate it counterclockwise) until the bollard starts to descend slowly (Fig. 8). DO NOT OVER ROTATE.

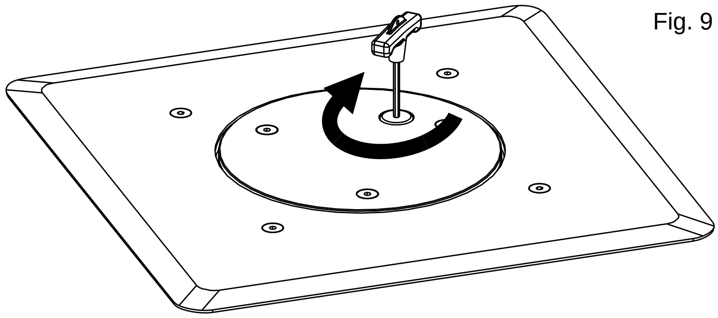
Fig. 8



NOTICE: this operation allows the bollard only to go down Not to go up.

3.3. When the bollard has completely gone down, relock the bollard rotating the key clockwise and re-screw the protection cover (Fig. 9).

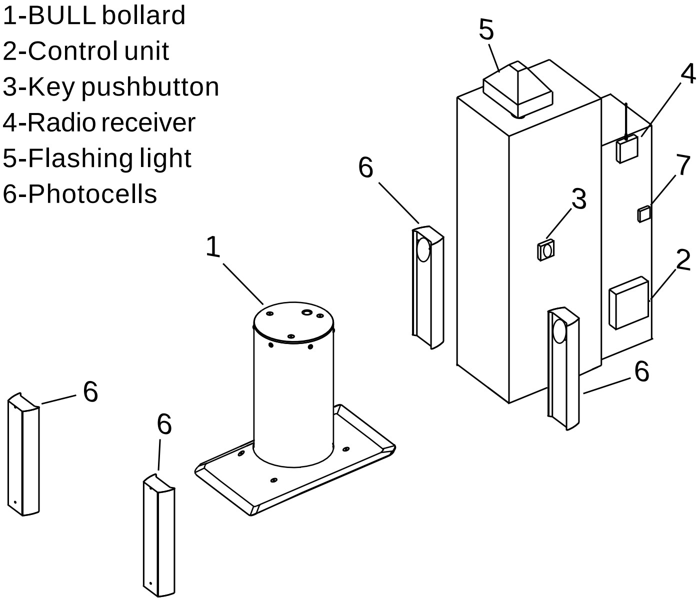
Fig. 9



NOTICE: don't leave the bollard down with the disabled lock.

4. TYPICAL INSTALLATION

1-BULL bollard
2-Control unit
3-Key pushbutton
4-Radio receiver
5-Flashing light
6-Photocells



5. PERIODICAL MAINTENANCE

The following maintenance activities can be executed opening the manhole cover.

Check that the bollard movement is always linear and doesn't meet any obstacle.	6 mnths
Check the light system (led)	6 mnths
Check the release functionality	6 mnths
Check the limit switches efficiency (micro-switch)	6 mnths
Lubrificate the rods with water resistant grease	1-2 years

All the above described activities must be executed <u>exclusively</u> by an authorized installer.

Sistemi elettronici
di Aperture Porte e Cancelli

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DECLARATION OF CONFORMITY

SEA declares under its responsibility that

the BULL operator

meets all the essential requirements as provided by the following European laws and later modifications (where applicable):
89/392/CEE (Machines Directive)
89/336/CEE (Electromagnetic Compatibility Directive)
73/23/CEE (Low-tension Directive)

WARNINGS :
The electric installation and the functioning logic choice must agree with the laws in force. In all cases a 16A breaker with a 30mA differential switch must be fitted. Keep the power cables (motors, power supply) separate from the command cables (push buttons, photocells and so on). In order to avoid any interference it's preferable to always use separate cables and ducts.

USE DESTINATION:
BULL bolalrd has been designed to be used exclusively as management equipment for public and private accesses.

REPLACEMENTS:
Any request for spare parts must be sent to:
SEA s.r.l. - Zona Ind.le, 64020 S.ATTO - Teramo - Italia or SEA UK Limited Tel: 0121 706 9629

SAFETY AND ENVIRONMENTAL COMPATIBILITY:
Please dispose of the packaging materials of products and / or circuits in an environmentally friendly manner.
Materials handling must be undertaken with appropriate vehicles.

DISINSTALLATION AND MAINTENANCE:
The disinstallation and/or putting out of service and/or maintenance of BULL bollard must be made only and exclusively by authorized and qualified staff.

NOTICE: THE MANUFACTURER IS NOT CONSIDERED RESPONSIBLE FOR DAMAGE CAUSED BY IRREGULAR, WRONG OR UNREASONABLE USE.

SEA reserves the right to make any required modification or change to the products and/or to this manual without any advanced notification.