

# VIGILO 2250

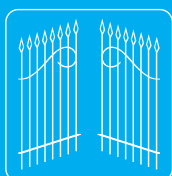
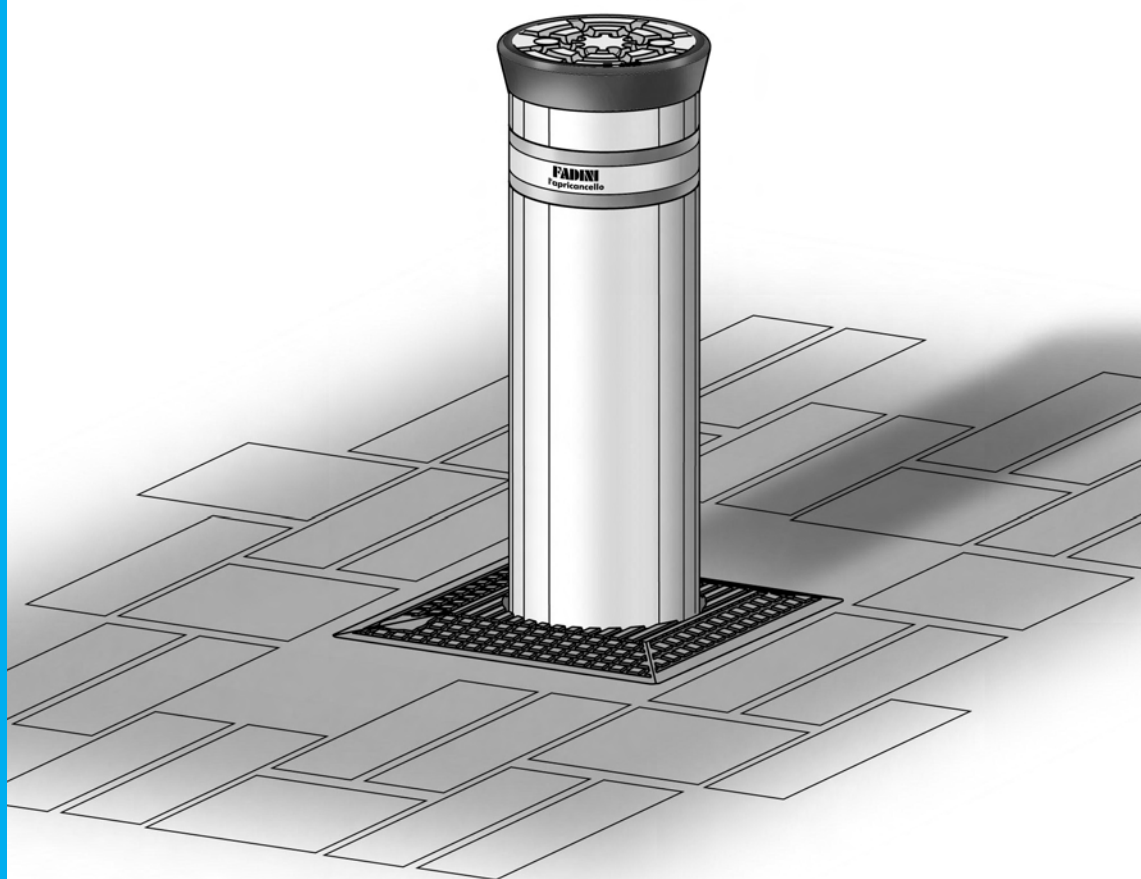
# VIGILO 2280

## **Retractable oil-hydraulic traffic control post**

Diameter  $\varnothing 200\text{mm}$

Stroke 500 mm

Stroke 800 mm



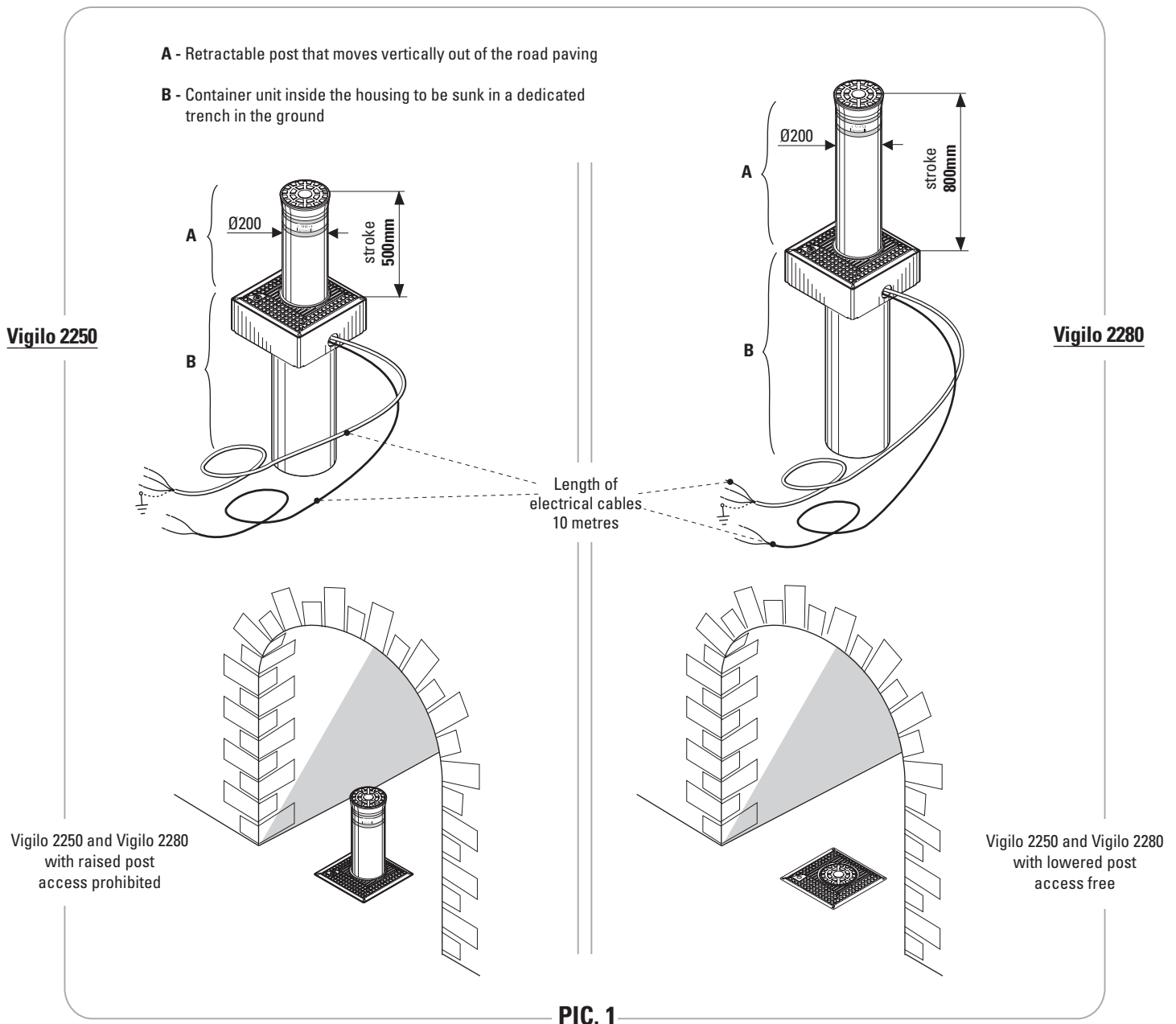
**FADINI**  
the gate opener  
Made in Italy

Instruction manual

GB

# INSTRUCTIONS TO BE FOLLOWED BEFORE INSTALLING THE OPERATOR

FOR OPTIMAL APPLICATION AND USE OF THE OPERATOR PLEASE READ THE INSTRUCTIONS AND CONSULT EXPLANATORY DIAGRAMS. **IMPORTANT: ALL INSTALLATION OPERATIONS MUST BE PERFORMED BY A QUALIFIED TECHNICIAN, IN OBSERVANCE OF THE EN 12453 - EN 12445 SAFETY REGULATIONS AND MACHINERY DIRECTIVE 98/37/EC. CAREFUL RISK ANALYSIS IS REQUIRED UNDER APPLICABLE REGULATIONS**



## OVERVIEW

This product belongs to our range of retractable traffic control posts. It is quick and easy to install, as it does not need to be adjusted or calibrated and has been designed to regulate and prohibit vehicular access.

Both the **VIGILO 2250** and **VIGILO 2280** oil-hydraulic operators have anti-corrosion treated steel posts with a diameter of **Ø200mm** and ranges of **500mm (Vigilo 2250)** and **800mm (Vigilo 2280)**.

The product's hallmark is its ease of installation: once the housing has been secured, the operator can be introduced ready for operation, as soon as the wiring has been completed.

As soon as the retractable post receives a command (from a key switch or radio transmitter), it rises from its interred position. The post is clearly visible at nighttime thanks to a reflective strip and the possibility of connecting a flashing light or traffic light. Using the electronic microprocessor programmer, the operator can also be customised with presence indicator accessories (magnetic coils, presence indicator photocells).

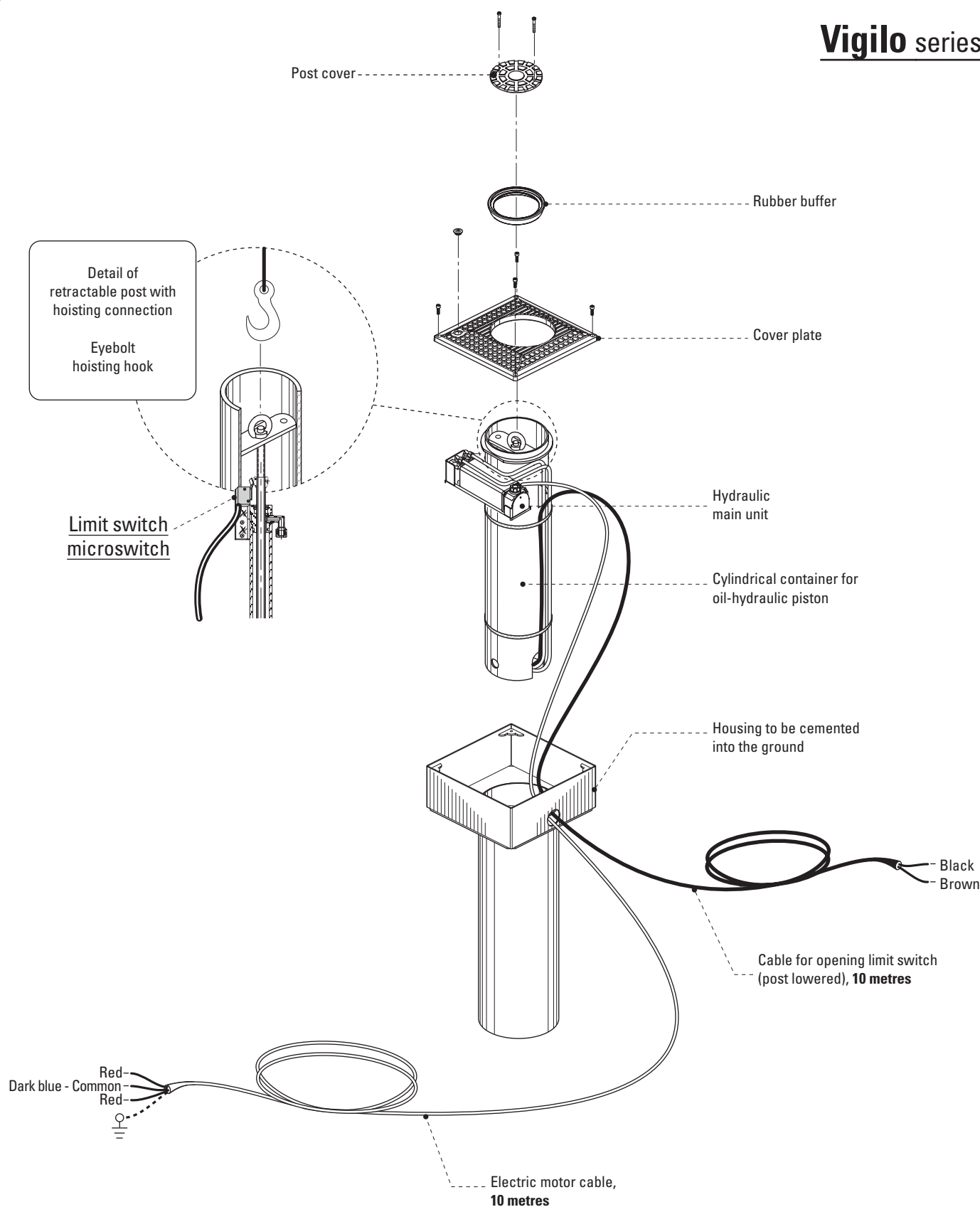
## PRELIMINARY OPERATIONS

Before starting installation operations, it is important to follow the indications given below:

- Before digging the trench to house the housing, check that there are no pipes or other utilities that could interfere with the preparatory operations.
- Check the firmness and consistency of the ground.
- Remove any obstacles hindering the post's movement.

# PRELIMINARY OPENING OF ALL FUNCTIONAL COMPONENTS

**Vigilo series**



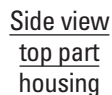
**PIC. 2**

Start by removing the cover plate to reveal the operator and separate the individual components, with the aid of a hoist. Pic.2: this makes it easy to extract the internal piston and hydraulic main unit container unit.

**IMPORTANT:** take care not to tear or cut wires.



### PIC. 3



**PIC. 4**

**IMPORTANT:** the top recess of the Housing (inside which the hydraulic main unit is placed), is not central to the tube below inside which the oil-hydraulic piston unit is placed: the latter is **17cm** from the **"Back side"** of the Housing (Pic.3 and Pic.4).



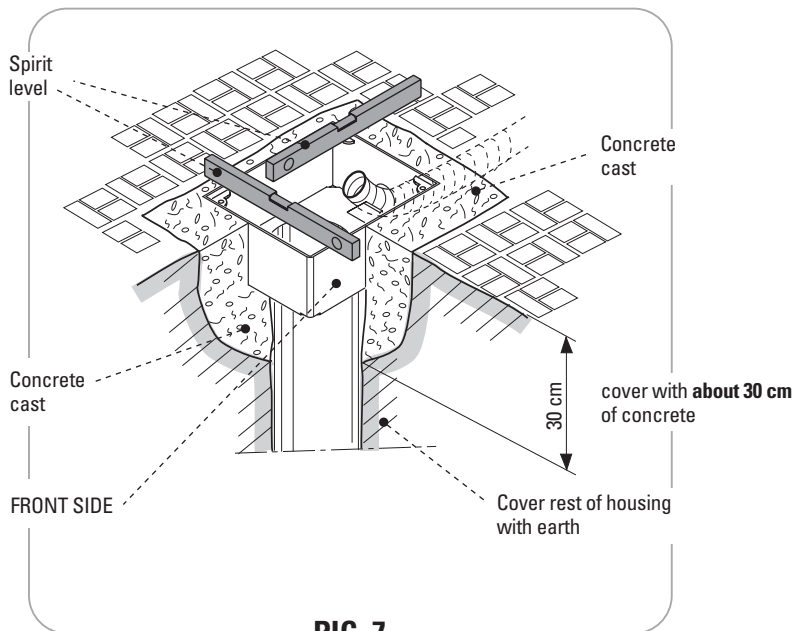
## PIC. 5



**PIC. 6**



- Dig a trench in the ground in the point at which the Vigilo 2250 or Vigilo 2280 operator is to be installed, according to the measurements shown in Pic.5 and Pic.6, and connect a Ø50 mm pipe leading to the Elpro S40 electronic programmer (10 metres of cable are provided).
- Place a 15 cm deep layer of loose gravel and pebbles on the bottom.



PIC. 7

- Once the housing has been positioned and installation completed, it is important for the top edge to be level with the ground (Pic. 7 and Pic. 8)



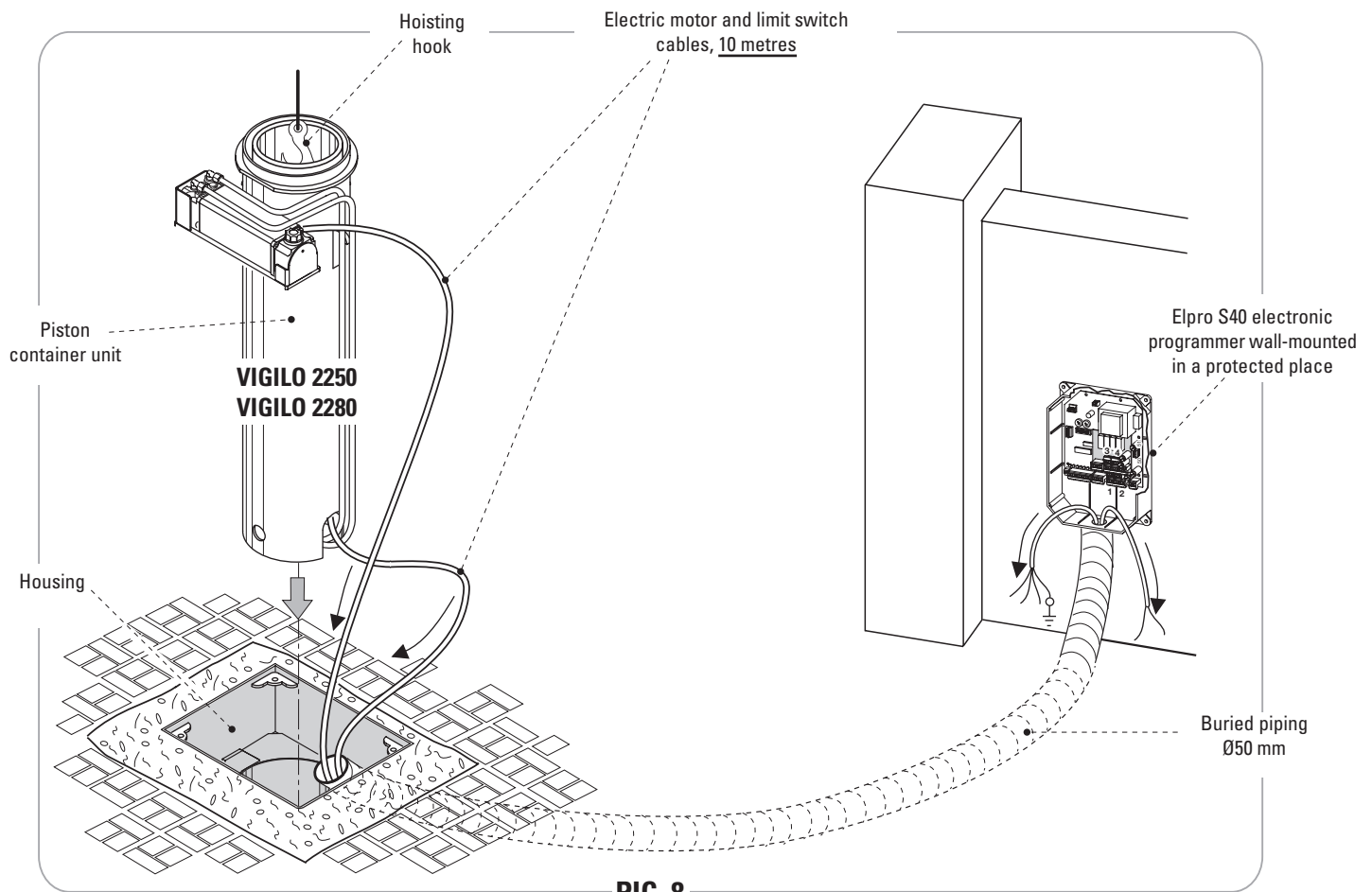
**IMPORTANT:** The top edge of the housing must be level with the ground when installation has been completed

Housing **VIGILO 2250**  
Housing **VIGILO 2280**

## PLACING THE TRAFFIC CONTROL POST

**VIGILO 2250**  
**VIGILO 2280**

## INSIDE THE HOUSING

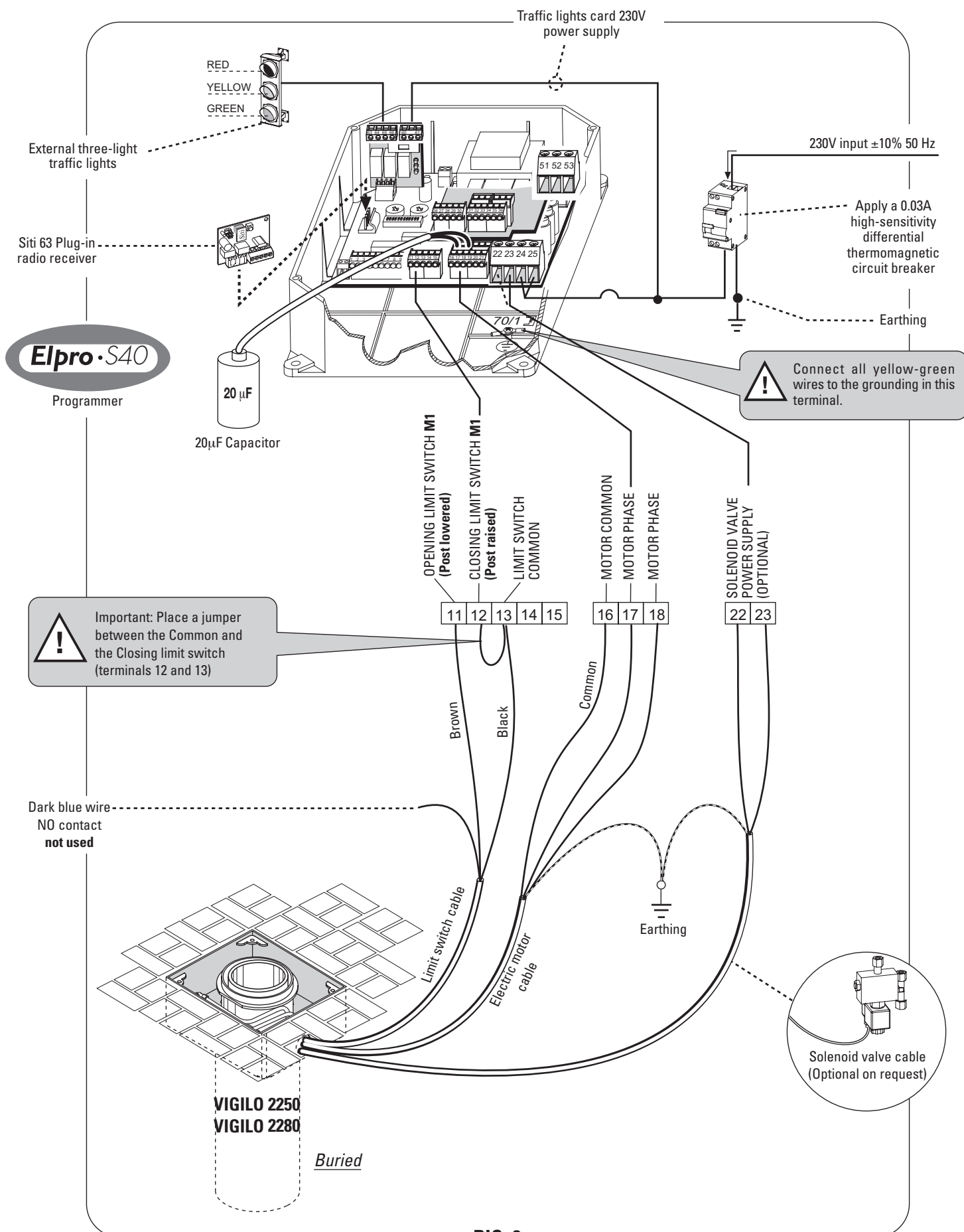


PIC. 8

Before performing this operation, wait for the housing to be secured firmly in place. Do not commence **until the concrete has set** and the electric wire pipe has been secured and covered with soil.

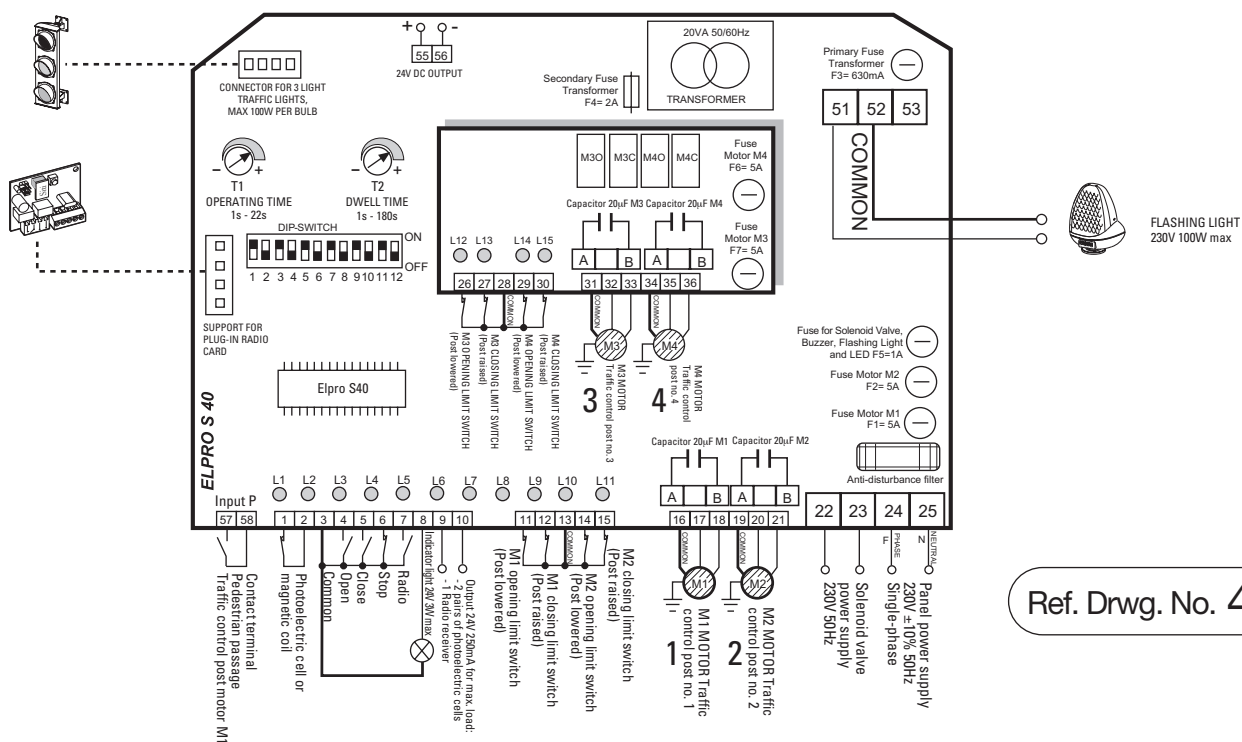
- Use a hoisting hook to lift the piston unit with the post and main unit (using the **eyebolt**) and place on top of the **housing**.
- The subsequent phase of this operation consists in threading the motor and limit switch electric wires through the piping and simultaneously starting to delicately place the operator inside the housing.

**IMPORTANT:** Pass the motor and limit switch electric wires through the piping without tearing or cutting the cables. Pic.8.



PIC. 9





Ref. Drwg. No. 4555

PIC. 10

## FIRST OPERATION MANOEUVRES

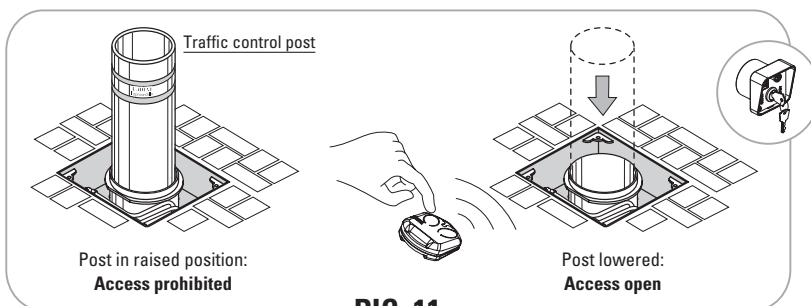
VIGILO 2250  
VIGILO 2280



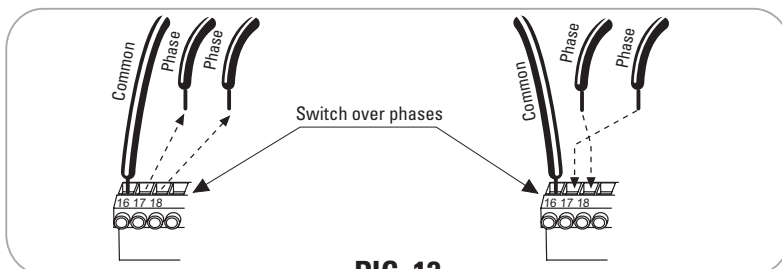
**ATTENTION:** it is important to establish the exact position of the traffic control post, open or closed, according to whether it allows or prohibits vehicular access (Pic. 11)

Having terminated installation of the traffic control post and all the safety and control accessories and the respective connections with the Elpro S40 programmer, and having completed thorough risk analysis, the first operation manoeuvres can be performed. If you have a radio transmitter, encode the radio receiver according to the relative instructions before giving the command to raise the retractable post, or give the manoeuvre command using a key switch. Pic.11.

During first use, it is important to check whether the wiring of the electric motor phases corresponds to the "open" and "closed" positions of the traffic control post, **with the post raised limit switch (access prohibited)**, if this is not the case, switch over the two "phase" wires, leaving the common fixed (Pic. 12).



PIC. 11



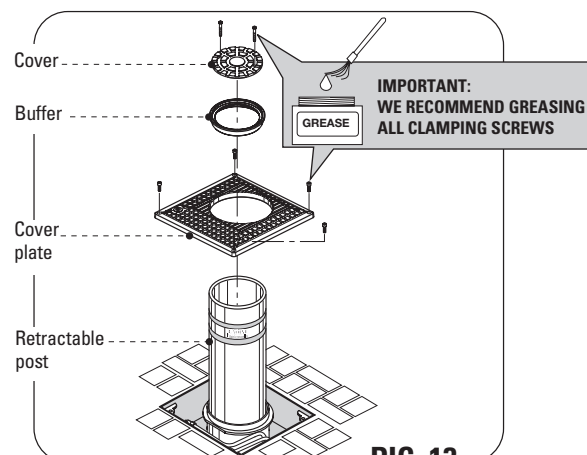
PIC. 12

## GROUND-LEVEL CLOSURE OF

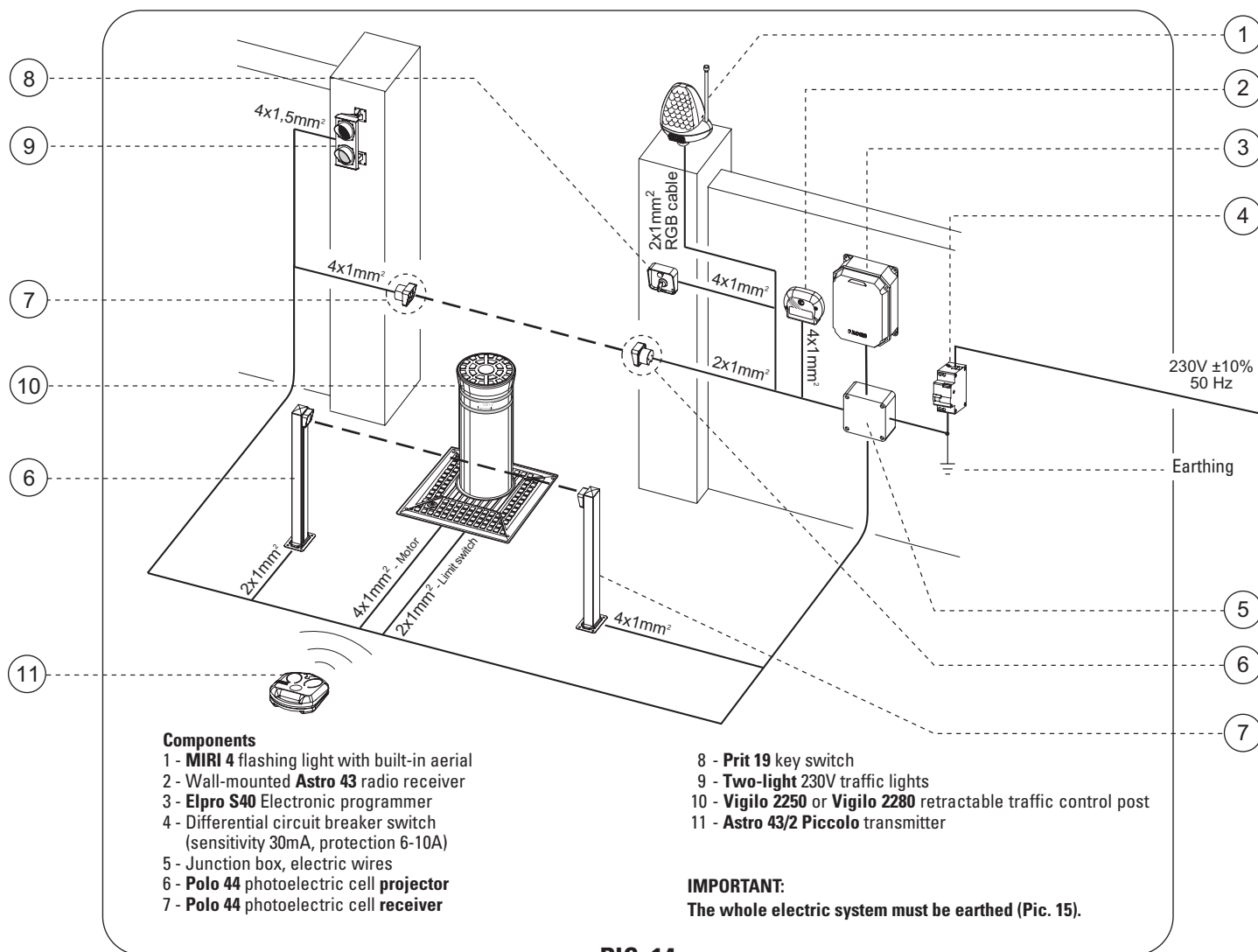
VIGILO 2250  
VIGILO 2280

## COVER PLATE

- Use the four screws to close the **Cover Plate** (Pic.13)
- Lift the **retractable post** for facilitate closure of the post **cover** with the **buffer**, give the command (by encoding a transmitter with the radio receiver or a key switch Pic.12) to lift the retractable post (Pic.13).



PIC. 13



PIC. 14

Before making electric connections, carefully read the wiring diagrams attached: **Elpro S40** electronic programmer instruction booklet - Drwg. 4555.

- **Power supply, electric motor and flashing light wiring must be made using cables with 1.5 mm<sup>2</sup> sections**, for a maximum distance of 50 m. For distances of over 50 metres, we recommend using electric wires with sections of 2 mm<sup>2</sup>.
- For the **Photoelectric cells, button switches and accessories**, electric wires with 1 mm<sup>2</sup> sections may be used.
- The whole electrics system must be earthed.

## ARRANGING THE SAFETY AND SIGNALLING ACCESSORIES

VIGILO 2250  
VIGILO 2280

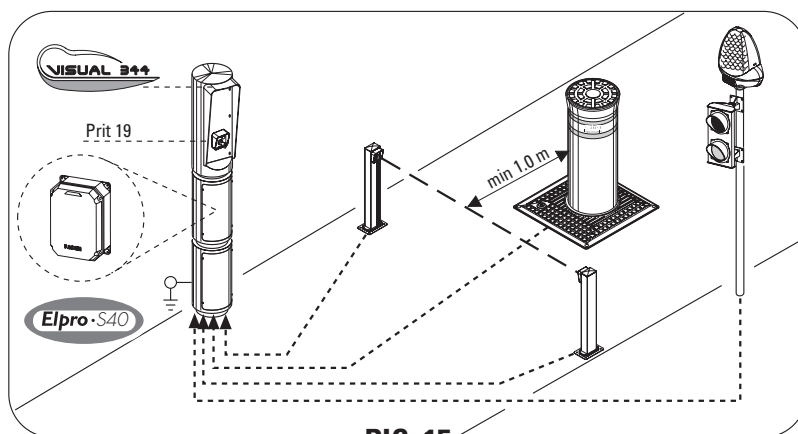
All safety and control accessories must be installed at certain distances from the operator in order to obtain effective installation. Connect to earth.

### ARRANGEMENT OF THE PHOTOELECTRIC CELLS

The photoelectric cells must be installed at a minimum working distance as indicated in Pic. 15.

### ARRANGING VISUAL 344

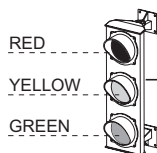
The 2 or 3-module **Visual 344** cabinet is a metal accessory used to house the **Elpro S40** in exposed positions, in those installation situations in which the programmer cannot be wall- or recess-mounted. It has also been designed for the installation of possible control accessories such as intercom systems or key switches, in the immediate vicinity of the **Vigilo 2250** or **Vigilo 2280** (pic. 15).



PIC. 15



Three-light  
traffic lights



Astro 43 Plug-in  
radio receiver



Spare capacitors  
supplied  
separately



230V  $\pm 10\%$   
50Hz

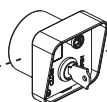
High sensitivity  
differential circuit-  
breaker, type 0.03 A



Earthing



Prit 19 key  
switch with  
STOP



VIGILO 2250  
VIGILO 2280

- 1 - 2 - 3 - 4 - Retractable post
- F1 - F2 - Retractable post limit switch 1 and 2
- F3 - F4 - Retractable post limit switch 3 and 4

Connecting 4 traffic control posts  
to the electronic programmer

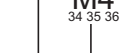
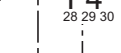
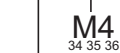
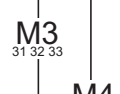
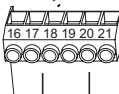
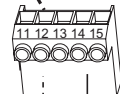
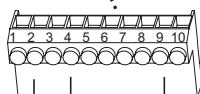
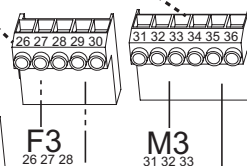
Elpro·S40

PIC. 16

Polo 44  
photoelectric cells  
Projector

Polo 44  
photoelectric cells  
Projector

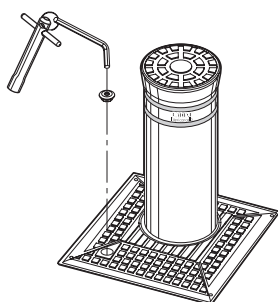
Pull-out  
terminals



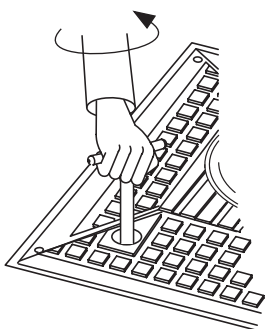
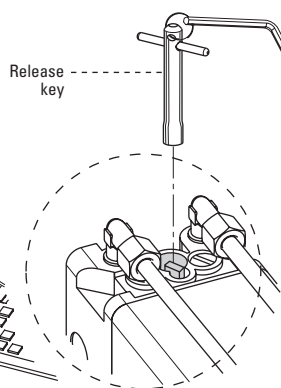
## MANUAL RELEASE OPERATIONS

VIGILO 2250  
VIGILO 2280

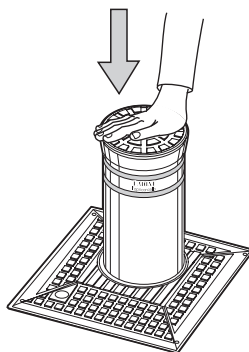
1) - Unscrew protection cap



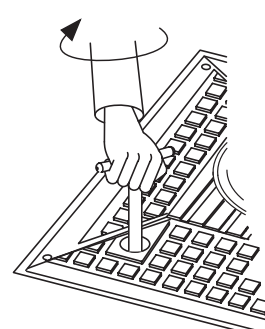
2) - Insert the release key in the release key recess



3) - Release the hydraulic circuit by turning the release key one turn anti-clockwise



4) - Press to lower the post manually



5) - Lock the hydraulic circuit by turning the release key clockwise



PIC. 17

In the case of a blackout, the post can be lowered manually following the instructions show in Pic.17. Unscrew the **Protection cap** (1), insert the **release key** into the recess (2) and turn once anti-clockwise to release the hydraulic circuit (3). Press down manually to lower the column (4) and then lock the hydraulic circuit, by turning the **release key** clockwise (5).

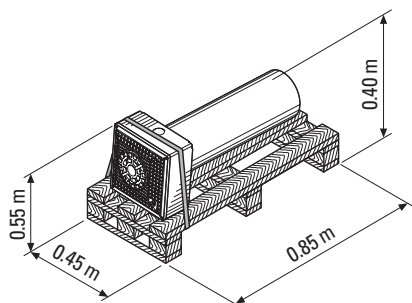
= To raise the post, first "**Lock**" by turning the key clockwise, then give command =

## PACKAGING DETAILS

VIGILO 2250  
VIGILO 2280

Oil-hydraulic traffic control post

VIGILO® 2250



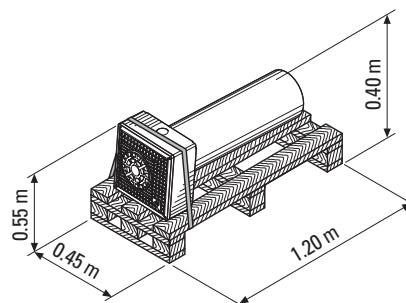
Individually packed  
on wooden pallet

Total weight of **Vigilo 2250**: 107 Kg

PIC. 18

Oil-hydraulic traffic control post

VIGILO® 2280



Individually packed  
on wooden pallet

Total weight of **Vigilo 2280**: 136 Kg

PIC. 19

## MANUFACTURER'S DECLARATION OF CONFORMITY

Manufacturer:



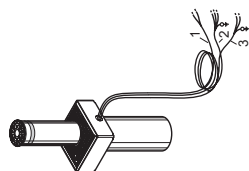
Address:

Via Mantova 177/A - 37053 Cerea (VR) Italy  
Tel. +39 0442 330422 - Fax +39 0442 331054  
e-mail: info@fadini.net - www.fadini.net

HEREBY DECLARES UNDER ITS OWN RESPONSIBILITY THAT:

Model:

**VIGILO® 2250**



retractable traffic control post

IS CONFORMING TO MACHINERY DIRECTIVE .....98/37/CE

and that:

Vigilo 2250 is sold for installation as an automated system, with original accessories and components indicated by the Manufacturer.

Pursuant to legal provisions, the operator is a 'machine' and consequently, the Installer must comply with all applicable safety regulations. The Installer is obliged to issue his/her own Declaration of Conformity.

The Manufacturer declines all responsibility for improper use of the product

The product is conforming to the following specific regulations:

- Risk analysis and subsequent operations to eliminate them: ..... **EN 12445 and EN 12453**
- Low Voltage directive..... **2006/95CE**
- Electromagnetic Compatibility Directive ..... **2004/108/CEE and 92/31CEE**

In order to certify the product, the Manufacturer declares under its own responsibility that it complies with  
PRODUCT STANDARD .....EN 13241-1

Date: 01-09-05

Meccanica Fadini s.p.a.  
Supervisor

Supervisor

(GB)



**FADINI®**  
the gate opener  
Made in Italy

## MANUFACTURER'S DECLARATION OF CONFORMITY

Manufacturer:



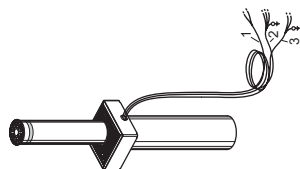
Address:

Via Mantova 177/A - 37053 Cerea (VR) Italy  
Tel. +39 0442 330422 - Fax +39 0442 331054  
e-mail: info@fadini.net - www.fadini.net

HEREBY DECLARES UNDER ITS OWN RESPONSIBILITY THAT:

Model:

**VIGILO® 2280**



retractable traffic control post

IS CONFORMING TO MACHINERY DIRECTIVE .....98/37/CE

and that:

Vigilo 2280 is sold for installation as an automated system, with original accessories and components indicated by the Manufacturer.

Pursuant to legal provisions, the operator is a 'machine' and consequently, the Installer must comply with all applicable safety regulations. The Installer is obliged to issue his/her own Declaration of Conformity.

The Manufacturer declines all responsibility for improper use of the product

The product is conforming to the following specific regulations:

- Risk analysis and subsequent operations to eliminate them: ..... **EN 12445 and EN 12453**
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In order to certify the product, the Manufacturer declares under its own responsibility that it complies with  
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Date: 01-09-05

Meccanica Fadini s.p.a.  
Supervisor

Supervisor

(GB)



**FADINI®**  
the gate opener  
Made in Italy

# TECHNICAL DATA AND DIMENSIONS

**VIGILO 2250**  
**VIGILO 2280**

## HYDRAULIC MAIN UNIT

Hydraulic pump .....	P10
Hydraulic pump flow rate .....	4.45 l/min
Mean operating pressure .....	2 MPa (20 bar)
Maximum pump pressure .....	4 MPa (40 bar)
Operating temperature .....	-20°C + 80°C
Hydraulic oil type .....	Oil Fadini
Main unit static weight .....	10 Kg
Main unit protection class .....	IP 54

## ELECTRIC MOTOR

Output .....	0.25 KW (0.33 HP)
Supply voltage .....	230 V
Absorbed current .....	1.8 A
Frequency .....	50 Hz
Consumption power .....	330 W
Capacitor .....	20 µF
Motor rotation speed .....	2 800 rpm
Service mode .....	S 3

### VIGILO 2250

#### OIL-HYDRAULIC PISTON

Rod exit time .....	4s
Net rod stroke .....	500 mm
Rod diameter .....	16 mm
Plunger diameter .....	30 mm
Thrust force .....	15 daN
Complete protection class .....	IP 557

#### PERFORMANCE VIGILO 2250 (STROKE 500mm)

Service cycle .....	4 secs Opening - 30s Dwell - 4s Closing - 30s Dwell
Complete cycle time .....	68s
Complete Opening - Dwell - Closing - Dwell cycles .....	53 per hour
Annual cycles (considering 8-hour working day) .....	154'000

Packaging Pic.18

(See Pic. 20)

### VIGILO 2280

#### OIL-HYDRAULIC PISTON

Rod exit time .....	6s
Net rod stroke .....	800 mm
Rod diameter .....	16 mm
Plunger diameter .....	30 mm
Thrust force .....	15 daN
Complete protection class .....	IP 557

#### PERFORMANCE VIGILO 2280 (STROKE 800mm)

Service cycle .....	6 secs Opening - 30s Dwell - 6s Closing - 30s Dwell
Complete cycle time .....	72s
Complete Opening - Dwell - Closing - Dwell cycles .....	50 per hour
Annual cycles (considering 8-hour working day) .....	146'000

Packaging Pic.19

(See PIC. 21)

## WARNINGS

- Before performing installation, conduct Risk Analysis and operate using devices compliant with EN 12445 and EN 12453 safety regulations.
- Packaging materials such as cardboard, nylon, polystyrene, etc. should be disposed of using specialised waste collection firms.
- If the operator is removed, **do not cut the electric wires**, rather remove them from the terminal board loosening the clamping screws inside the dividing box.
- Disconnect the main switch before opening the lid of the electric cable junction box.
- The whole operator must be earthed using the yellow/green electric cable.

## GUARANTEE CERTIFICATE ON REQUEST BY CUSTOMER

We recommend reading the standards, suggestions and observations contained in the "Safety Regulations booklet" thoroughly.

## CHECKS AND MAINTENANCE:

For optimal performance of the system over time and operation in compliance with safety regulations, correct maintenance and checks must be performed on the operator, the electronic equipment constituting the installation and on wiring performed by qualified technicians:

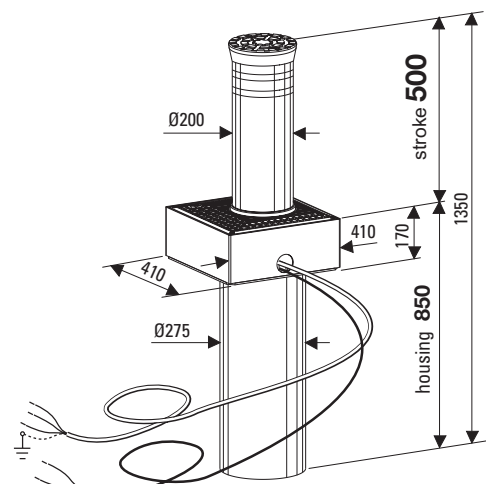
- Oil-hydraulic operator: maintenance check every 6 months.
- Electronic equipment and safety systems: a monthly maintenance check.

The growth of MECCANICA FADINI has always been based on the development of guaranteed products thanks to our "TOTAL QUALITY CONTROL" system which ensures constant quality standards, updated knowledge of the European Standards and compliance with their requirements, in view of an ever increasing process of improvement.



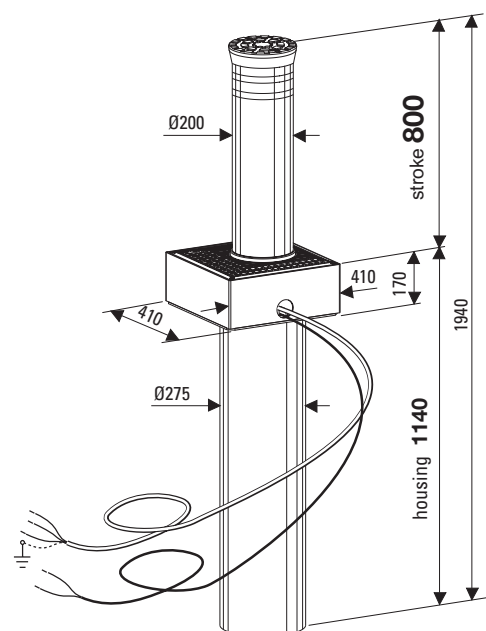
AUTOMATIC GATE MANUFACTURERS

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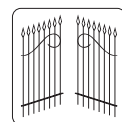
**10 metres of cable**  
Electric motor and  
limit switch  
**VIGILO 2250 - weight 102 Kg**

**PIC. 20**



**10 metres of cable**  
Electric motor and  
limit switch  
**VIGILO 2280 - weight 131 Kg**

**PIC. 21**



**FADINI**  
the gate opener  
Made in Italy



EUROPEAN MARK CERTIFYING CONFORMITY  
TO THE ESSENTIAL REQUIREMENTS OF THE  
STANDARDS 98/37/EC

Distributor's box

The manufacturer reserves the right to make amendments to this manual without prior notice and declines all responsibility for any errors, personal injury or damage to property.