BAYT 980

Oil-Hydraulic barrier for traffic control of from 3 to 8 metres wide

INOX *Stainless Steel and Painted Versions*

Version with aluminium fencing

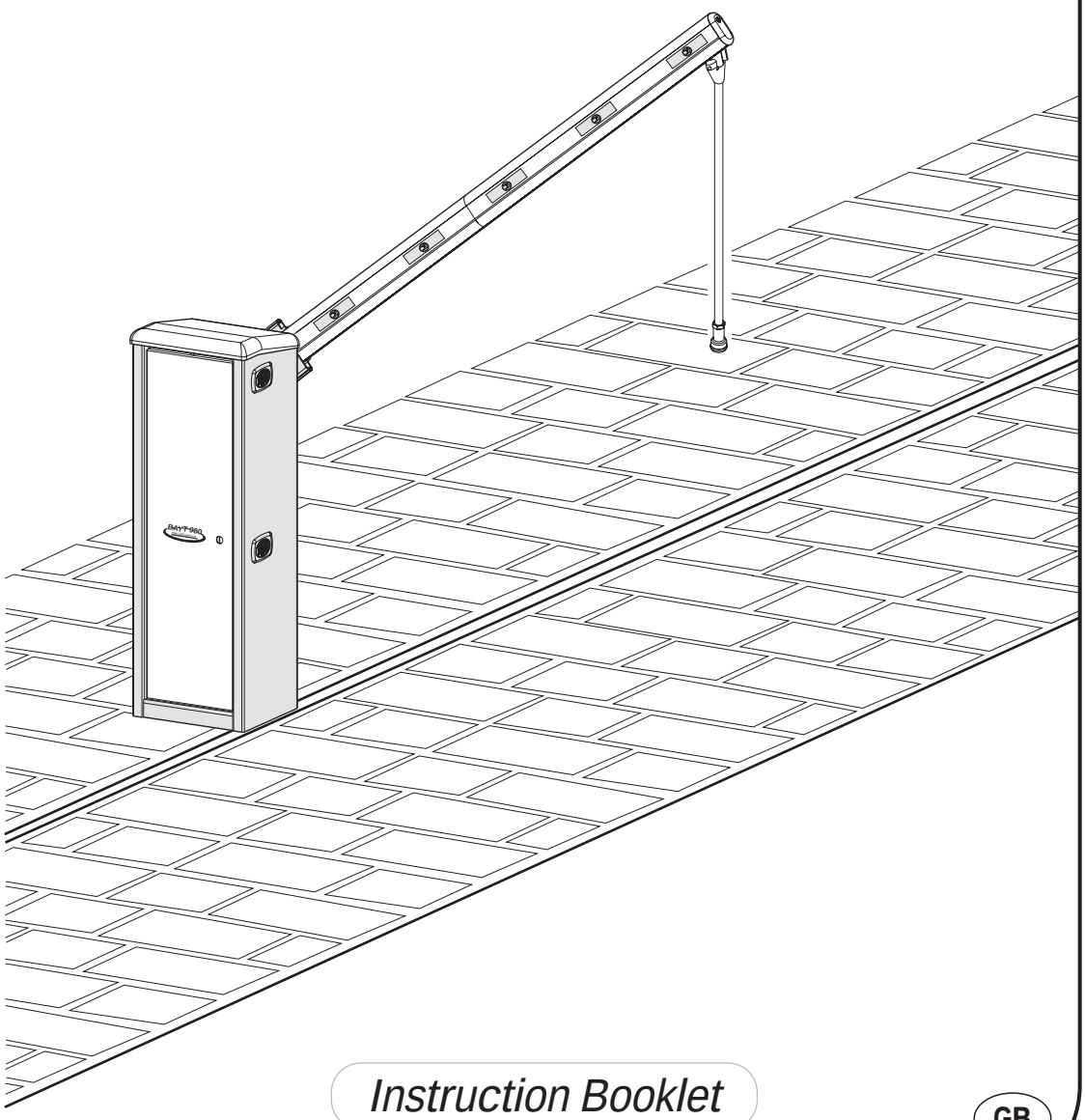
Version with cabled hinged road barrier beam

Folding or fixed leg with yoked pedestal

Fully convertible to right and left versions

Fixed braking when opening and adjustable when closing

Road barrier beams set up for flashing LED lamps



CE

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Instruction Booklet

GB

1. **Miri 4** flasher with **Birio A8** aerial (optional)
2. Housing **cabinet cover**
3. Accessory control **box** with **Elpro 980** unit
4. **Cos 982** hydraulic control unit group with hydraulic piston and oil reservoir
5. Barrier **cabinet** - right hand version
6. **Cabinet** door switch for general electrical power **disconnection**
7. **Anchor** plate with anchor bolts
8. **Beam** arm in **R532** anodised aluminium, made up of two modules: 2.10 m + 3.20 m
9. **Folding leg** (optional)
10. **Fixed pedestal** with **yoke** (optional)

Bayt 980
Hydraulic

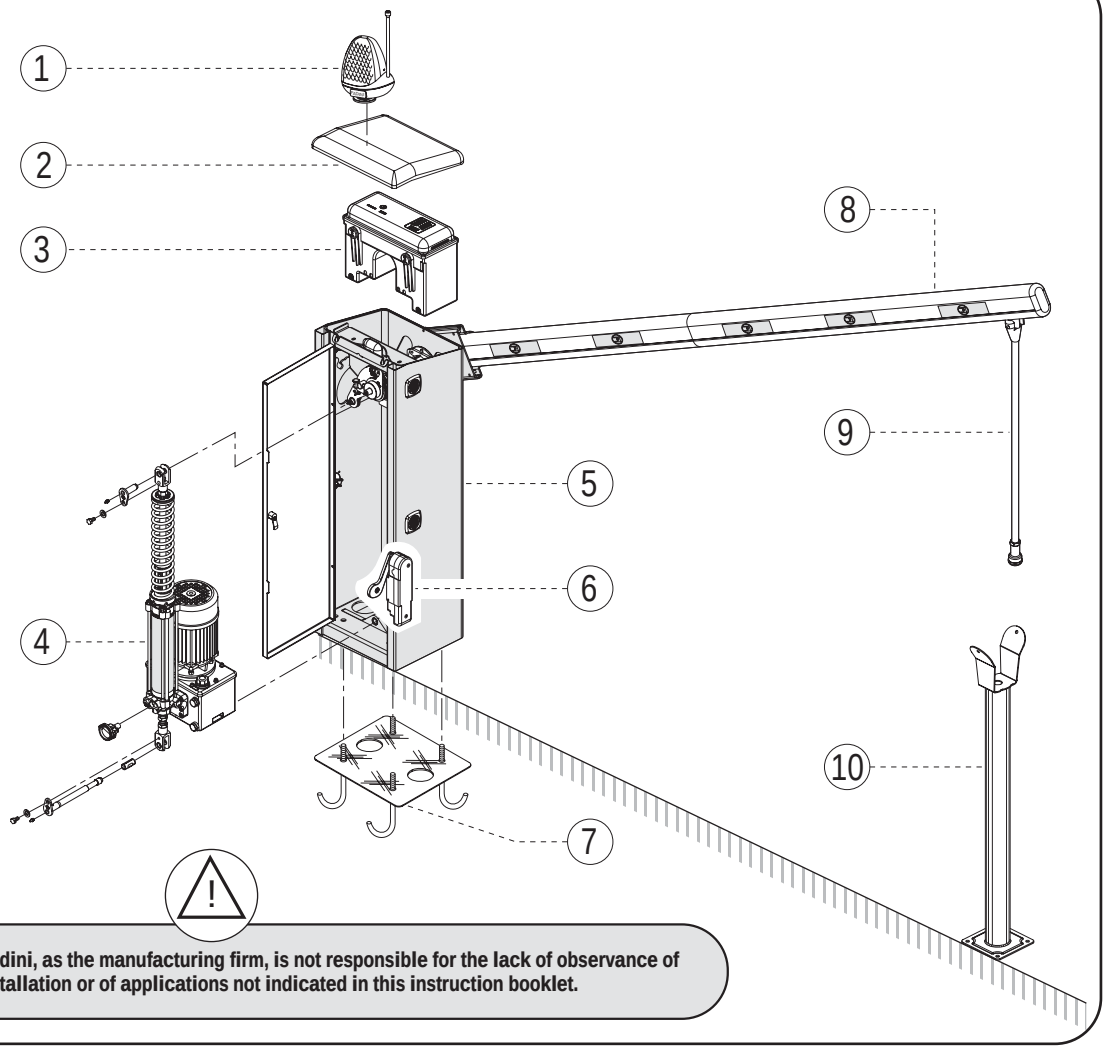

FIG. 1

The firm Meccanica Fadini, as the manufacturing firm, is not responsible for the lack of observance of proper standards of installation or of applications not indicated in this instruction booklet.

INSTRUCTIONS TO BE FOLLOWED BEFORE INSTALLATION OF THE AUTOMATED MECHANISM

FOR PERFECT APPLICATION AND FUNCTION OF THE *BAYT 980* IT IS RECOMMENDED THAT THE FOLLOWING EXPLANATION POINTS AND THEIR RESPECTIVE DRAWINGS FOUND IN THIS INSTRUCTION BOOKLET ARE FOLLOWED.
IMPORTANT: THE ENTIRE INSTALLATION MUST BE PERFORMED BY QUALIFIED TECHNICAL PERSONNEL,
WITH RESPECT FOR THE EN 12453 - EN 12445 SAFETY REGULATIONS
AND MACHINE DIRECTIVE 98/37/EC.
CARRY OUT A CAREFUL RISK ANALYSIS ACCORDING TO THE REGULATIONS IN FORCE.

PRELIMINARY WARNINGS FOR SAFETY AND THE PROPER OPERATION OF THE SYSTEM
Before proceeding to the actual installation of the automated mechanism in the ground it is necessary to verify as follows:

- The installation, inspection, testing, risk analysis and following maintenance procedures must be performed by qualified and authorised technical personnel.
- This automated mechanism has been designed for the exclusive use with the minimum required safety, signalling and command accessories, which are indicted in this booklet.
- Any other application not expressly indicated in this booklet could bring about malfunction or damages to things or persons.
- Check and verify the consistency of the terrain so as to avoid future settling or deformation in the area in which the automated mechanism is to be installed.
- Check and verify in the immediate vicinity of the site and underneath it that there are no service conduits that could interfere with the necessary excavations in the ground.
- Verify that, in the immediate vicinity and underneath the site of the installation of the accessories, there are no sources of electromagnetic disturbances, such that the magnetic/electromagnetic fields of any possible metallic mass detection loops and of all the system command and control electronics for the device might be masked or unduly influenced.
- Check and verify that the electrical mains supply lines powering the electrical motor are 230V±10% at 50Hz.
- Electrical power supply for the ***Bayt 980*** must be delivered by way of electrical cables with a section of 1 mm^2 for a maximum distance of 50 metres. For distances longer than 50 metres it is recommended that cables with sections suitable for a proper standard of installation be used.
- During the entire movement of the barrier beam there must be no obstacles or aerial contacts that obstruct its movement.
- For any necessary substitutions of elements or accessories, utilise only original components indicated by the manufacturing firm.
- All of the packing material and other waste must be disposed of through specialised firms. Do not dispose of toxic substances into the environment. The Meccanica Fadini Company is not responsible for any damages brought about by improper utilisation or any use that is not specifically indicated in this booklet. Furthermore, it will not respond for malfunctions due to the use of materials or accessories not indicated by the same firm.
- The manufacturing firm reserves the right to bring about modifications to this booklet without notice.
- **All of the drawings and figures in this booklet are purely indicative and may not represent a real installation. It is the job of the installer to verify them and adapt them to the actual requirements.**

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RECOGNITION OF THE RIGHT AND LEFT HANDED BAYT 980

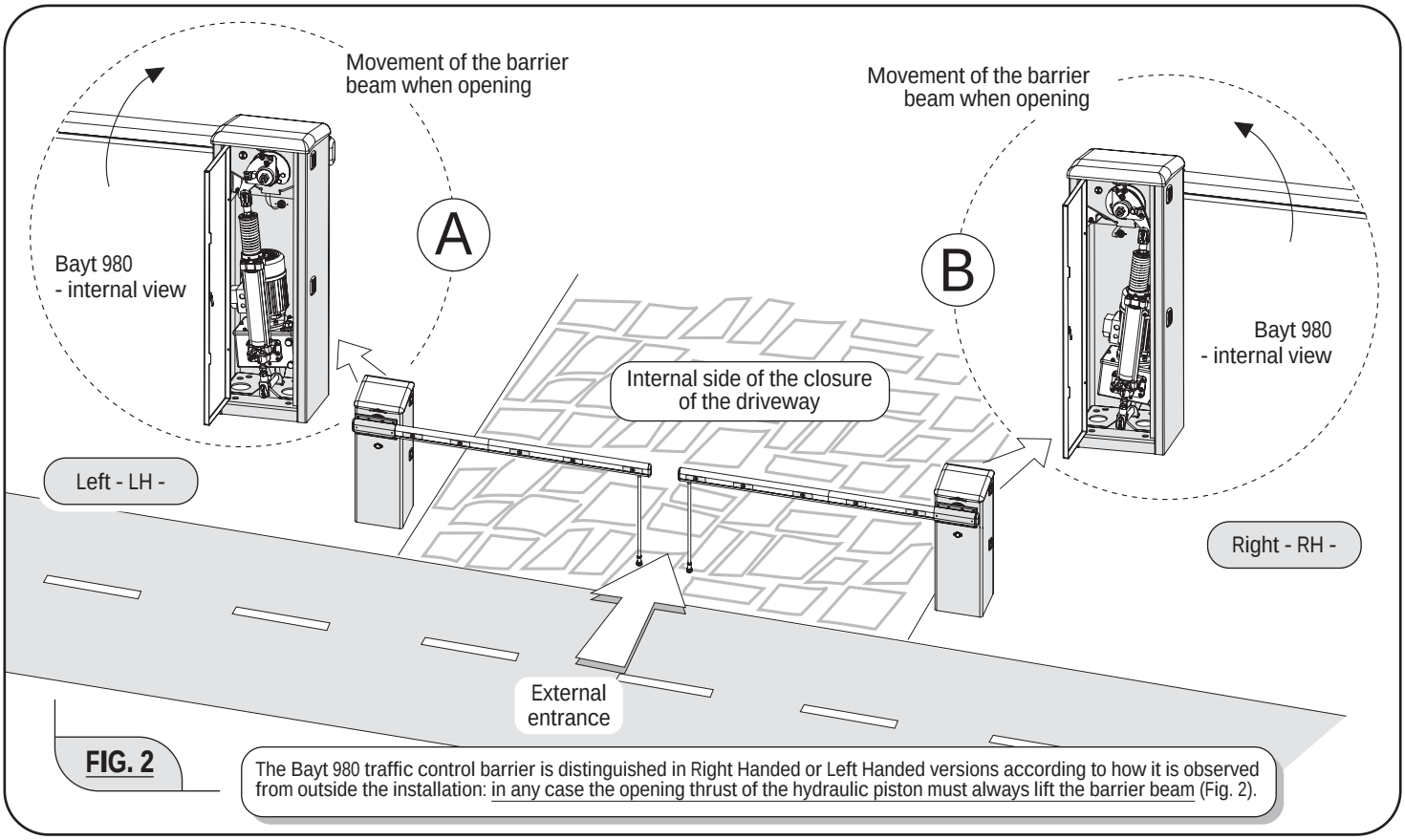

FIG. 2

The Bayt 980 traffic control barrier is distinguished in Right Handed or Left Handed versions according to how it is observed from outside the installation: in any case the opening thrust of the hydraulic piston must always lift the barrier beam (Fig. 2).

INSTALLATION OF THE ANCHORING PLATE IN THE GROUND

The first operation to be carried out is the cementing of the ***Anchor Plate*** into the ground on a levelled surface obtained through the pouring of a cement slab, paying attention that the longer side corresponds to the cabinet door side. It is necessary then to arrange one or two flex conduit tubes with a 50mm diameter, which will enable the later passage of the electrical service cables (Electrical powering of the system and for the command and safety accessories), as illustrated in Fig. 3.

1. Cabinet door
2. ***Bayt 980*** housing cabinet
3. Installed anchor plate
4. Conduit for the cables for the installation of a possible second Bayt 980 barrier or for photocells attached to the fixed pedestal with yoke.
5. Base foundation in concrete 500x500x600 mm
6. ø50mm conduit for service cabling
7. Level both sides
8. Four M14 anchor bolts that extend for 65 mm

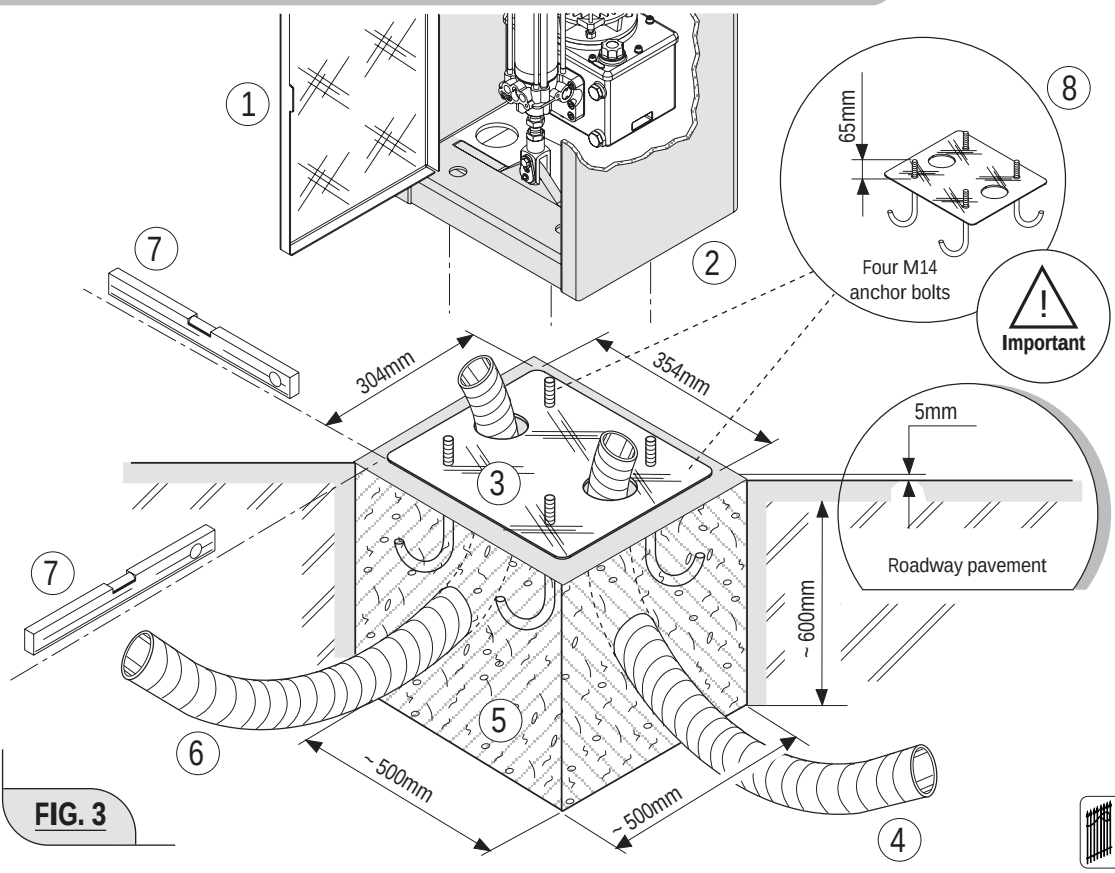

FIG. 3

Important: screw down the entire length of the threading of the anchor bolts to the anchor plate before cementing it in its site.
Important: the anchor plate must be perfectly levelled before it is cemented using a level in both directions. Furthermore, it is necessary that it be ***raised by 5 mm*** from the level of the roadway pavement (Fig.3).

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INSTALLATION OF THE ANCHORING PLATES FOR TWO BARRIERS

1. Right handed - ***RH*** - Bayt 980 Hydraulic Barrier (seen from outside)
2. Left handed - ***LH*** - Bayt 980 Hydraulic Barrier (seen from outside)
3. Anchor plate 304 x 354mm
4. ø50mm conduit for connection of cabling between the two barriers
5. M14 anchor bolts - 4 pcs. for each barrier
6. ø50mm conduit for service cabling

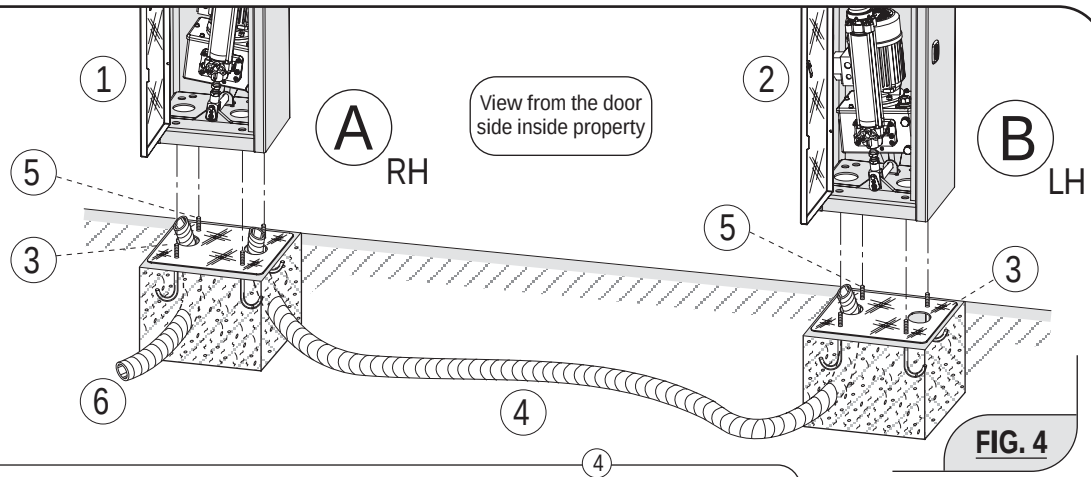


FIG. 4

For installations that require two Bayt 980 roadway barriers it is necessary to arrange underground electrical conduit for communication between the two housing cabinets, for the connection of the photocells or other accessories for the service cabling (Fig. 4).

INSTALLATION OF THE FIXED PEDESTAL WITH YOKE

1. One pair of Polo 44 photocells
2. Fixed pedestal with yoke
3. Anchor bolts
4. 0.54 m Column
5. 0.30 x 0.30 x 0.20 m Concrete block for photocell
6. Important dimension 80 mm
7. ø20 mm flex conduit for connection of cabling for fixed pedestal with yoke for the electromagnet
8. ø20 mm flex conduit for photocell connection cabling
9. Derivation well
10. ø50 mm flex conduit for barrier and accessories connection cabling
11. 0.5 x 0.5 x 0.6 m Concrete block
12. ø50 mm flex conduit for electrical power supply cabling
13. 0.304 x 0.354 m Anchor plate

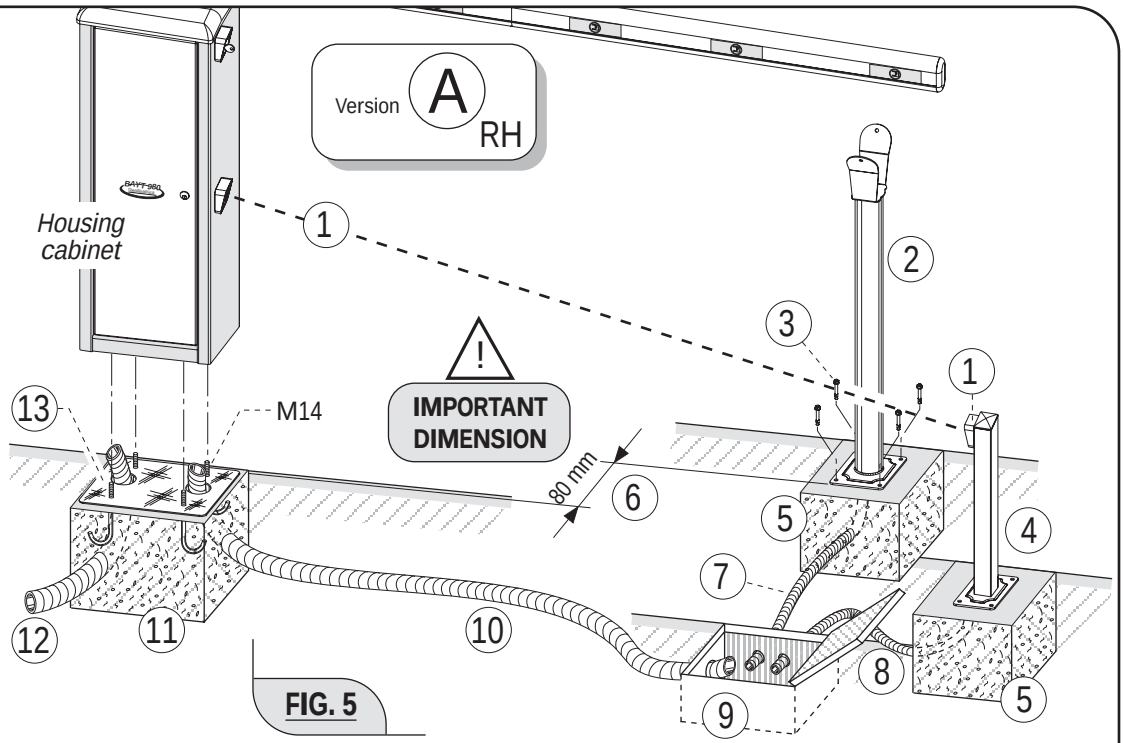
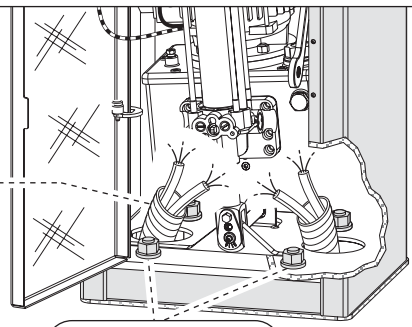


FIG. 5

For the installation of the ***"Fixed pedestal with yoke"*** - 2 - it is necessary to arrange a service conduit for the passage of electrical cabling for the photocells or for a possible application of the electromagnet (optional) anchoring the "Aluminium Barrier Beam" between the barrier and the fixed pedestal with yoke - 2 -; this operation must be performed after having set the Bayt 980 foundation plate at a distance determined by the length of the barrier beam from the fixed pedestal - 2 - 80 mm out of line from the corner of the housing cabinet base (Fig. 5).

Once the ***Anchor Plate*** Anchor Plate has been well set in the ground (it is necessary to wait until the concrete has set), the Bayt 980 ***housing cabinet*** may be installed and then tighten the four ***M14 hexagonal nuts*** securely with their relative ***washers*** (screwing them down tight on the anchor bolts extruding from the base of the cabinet) as illustrated in Fig. 6.

Insert the conduit inside of the cabinet passing by way of the two holes in the anchor plate.



Tighten the four M 14 hexagonal nuts with the washers supplied

A
LH

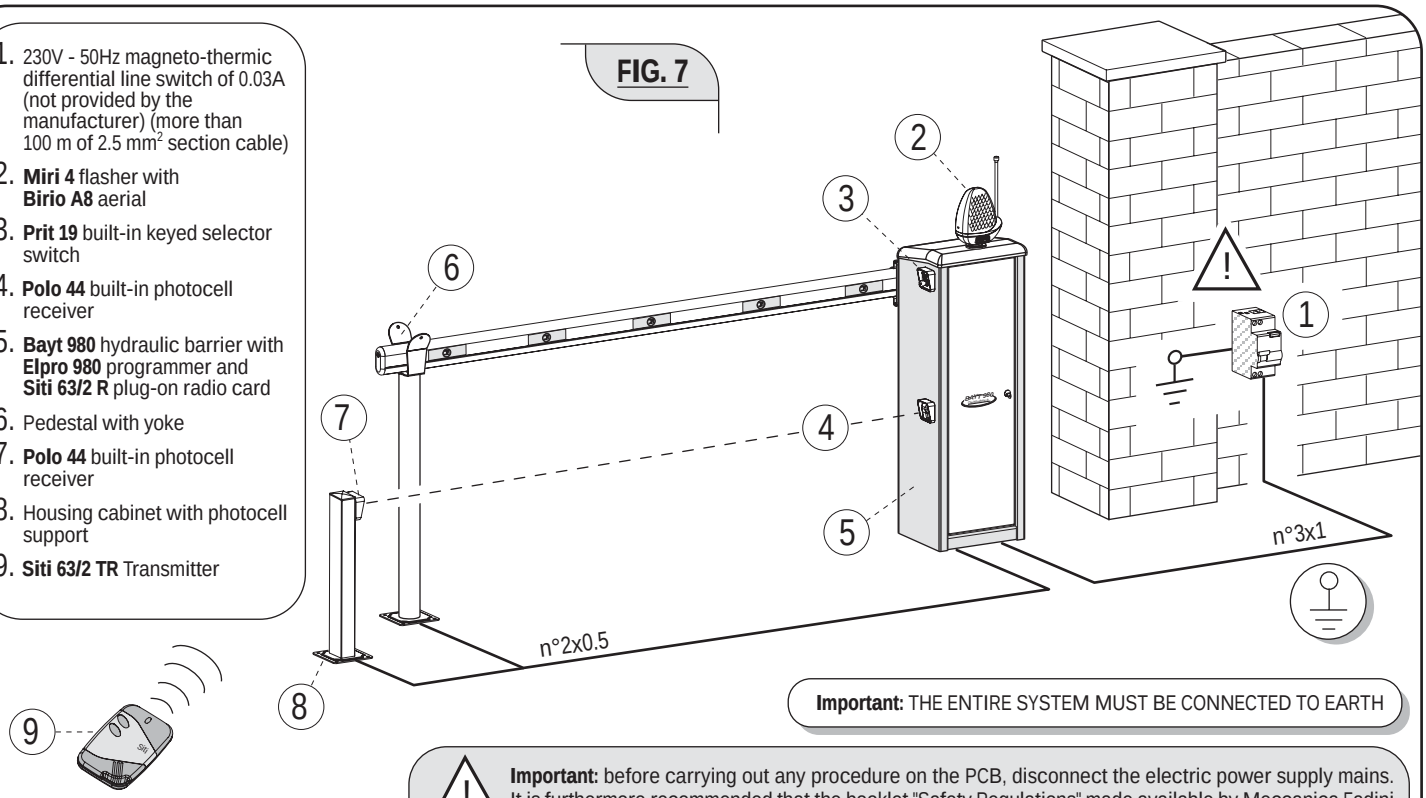
Important: At the moment of the attachment of the housing cabinet on top of the anchor plate, it is necessary to pay attention to the insertion of the electrical cable conduit as well, having it pass inside of the two holes in the base of the housing cabinet.

FIG. 6

MAIN COMPONENTS FOR THE BAYT 980 ELECTRICAL SYSTEM

1. 230V - 50Hz magneto-thermic differential line switch of 0.03A (not provided by the manufacturer) (more than 100 m of 2.5 mm^2 section cable)
2. **Miri 4** flasher with **Birio A8** aerial
3. **Prit 19** built-in keyed selector switch
4. **Polo 44** built-in photocell receiver
5. **Bayt 980** hydraulic barrier with **Elpro 980** programmer and **Siti 63/2 R** plug-on radio card
6. Pedestal with yoke
7. **Polo 44** built-in photocell receiver
8. Housing cabinet with photocell support
9. **Siti 63/2 TR** Transmitter

FIG. 7



Important: THE ENTIRE SYSTEM MUST BE CONNECTED TO EARTH

Important: before carrying out any procedure on the PCB, disconnect the electric power supply mains. It is furthermore recommended that the booklet "Safety Regulations" made available by Meccanica Fadini be examined thoroughly.

Important: all of the electrical connections and the cabling must be carried out to standard, with respect for the proper rules of installation, according to the safety regulations in force (Machine Directive 98/37/CE) and must be performed by qualified technical personnel, formulating a complete **risk analysis** and adopting suitable safety measures in the **filling out of the Technical File**, according to the **EN 12445 ed EN 12453** Regulations.
- **For the Electrical power supply of the electrical motor and the flasher,** electrical cables with a section of 1 mm^2 will be utilised for a maximum distance of 50 metres. For distances longer than 50 metres it is recommended that cables with sections suitable for a proper standard of installation be used. For all of the accessories external to the electrical control panel, electrical cables with wires of a section of 0.5 mm^2 may be utilised.

HOW TO MAKE THE LEFT HANDED BAYT INTO A RIGHT HANDED *BAYT* AND VICE VERSA

Bayt 980 **- LH -**
Left

Bayt 980 **- RH -**
Right

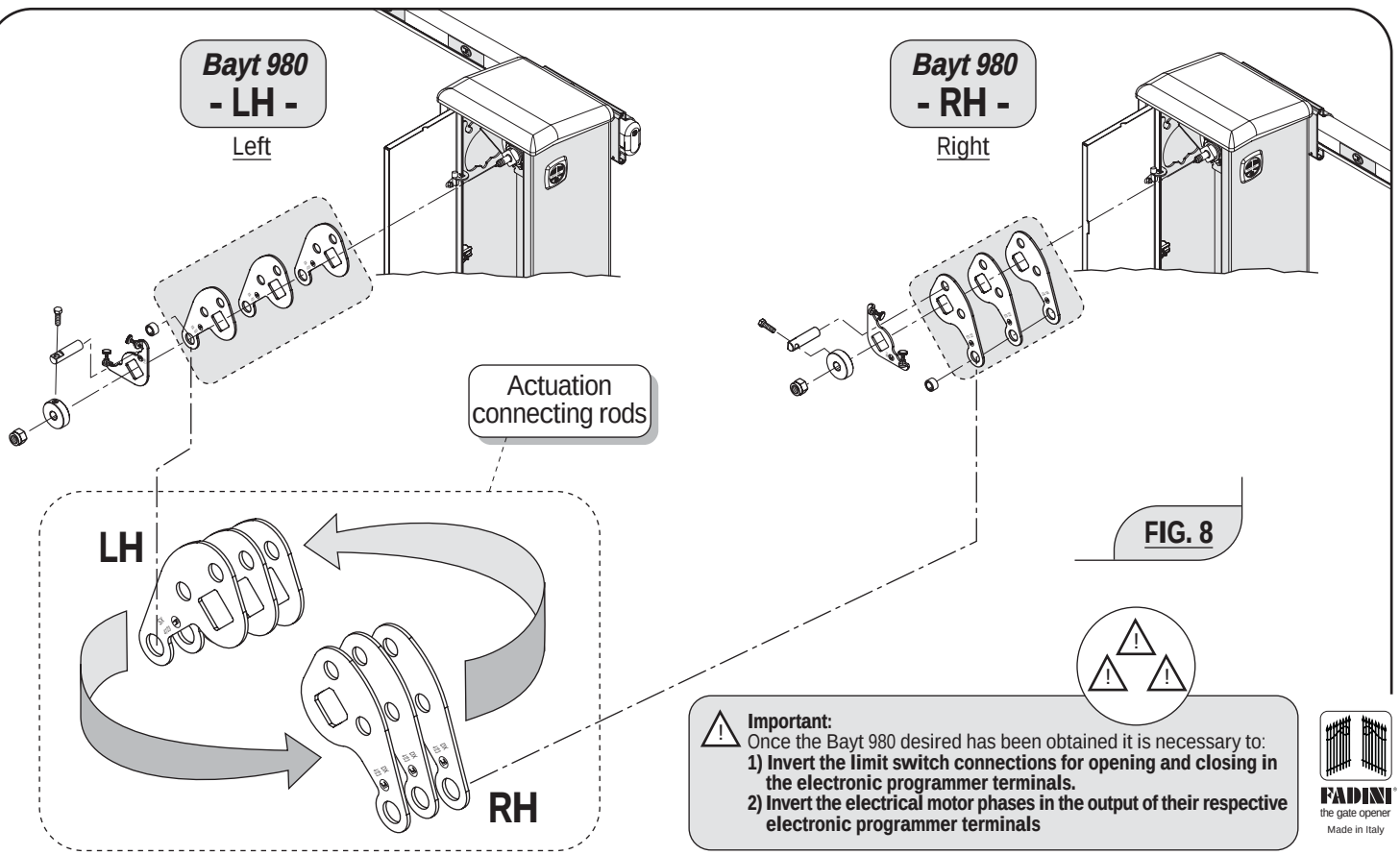


FIG. 8

Important:
Once the Bayt 980 desired has been obtained it is necessary to:
1) Invert the limit switch connections for opening and closing in the electronic programmer terminals.
2) Invert the electrical motor phases in the output of their respective electronic programmer terminals

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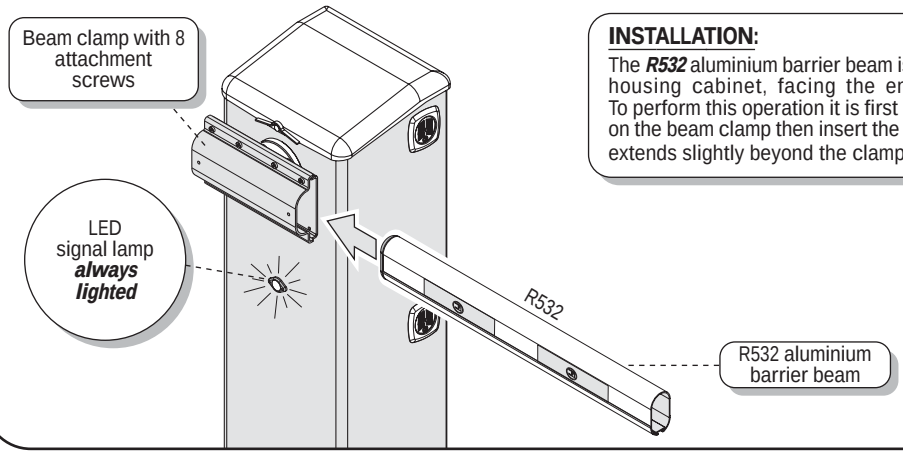

INSTALLATION:
The ***R532*** aluminium barrier beam is attached to the beam clamp located on the side of the housing cabinet, facing the entrance that is to be controlled with the barrier. To perform this operation it is first of all necessary to loosen the eight attachment screws on the beam clamp then insert the barrier beam, so that the end with the black plastic cap extends slightly beyond the clamp, to then finally tighten the attachment screws (Fig. 9).

FIG. 9

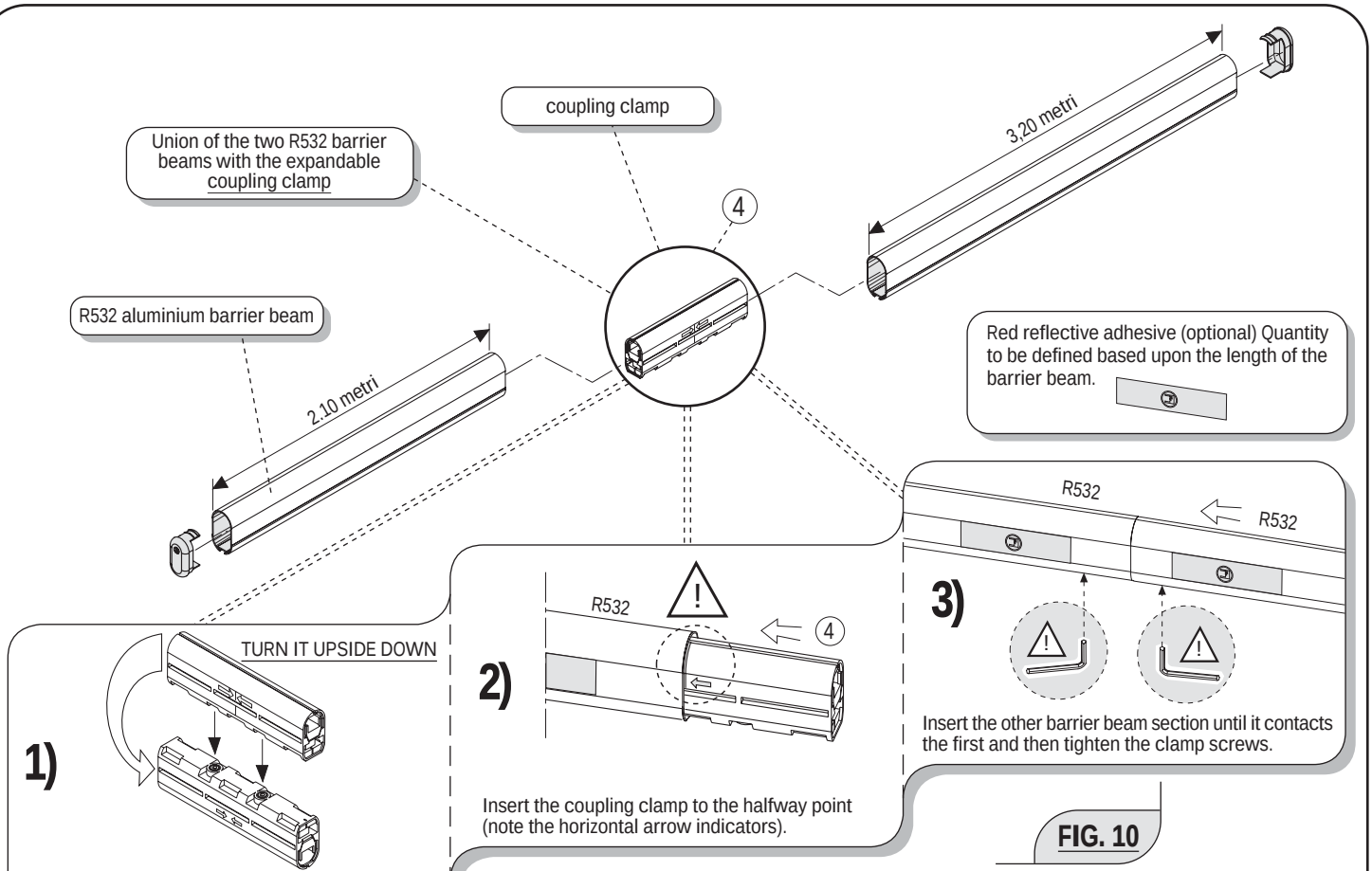

FIG. 10

The union of the two barrier beams is possible utilising the **coupling clamp**, which has the characteristic of expanding when the screws are tightened and contracting when the screws are loosened (Fig. 10).

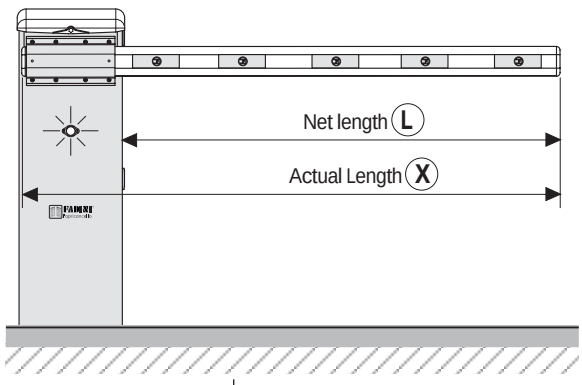

FIG. 11

Actual length maximum dimensions (metres) X	Net length for the roadway (metres) L
Barrier beam 3.20	metres 2.85
" 2.10 + 2.10 = 4.20	" 3.85
" 3.20 + 2.10 = 5.30	" 4.95
" 3.20 + 3.20 = 6.40	" 6.05
" 3.20 + 2.10 + 2.10 = 7.40	" 7.05
" 3.20 + 3.20 + 2.10 = 8.50	" 8.15

POSSIBLE COMBINATIONS:
The R532 barrier beam is provided in two modules: of ***2.10 metres*** and of ***3.20 metres***, with the possibility of making up barrier beams of different lengths, as represented in the table in Fig.11.

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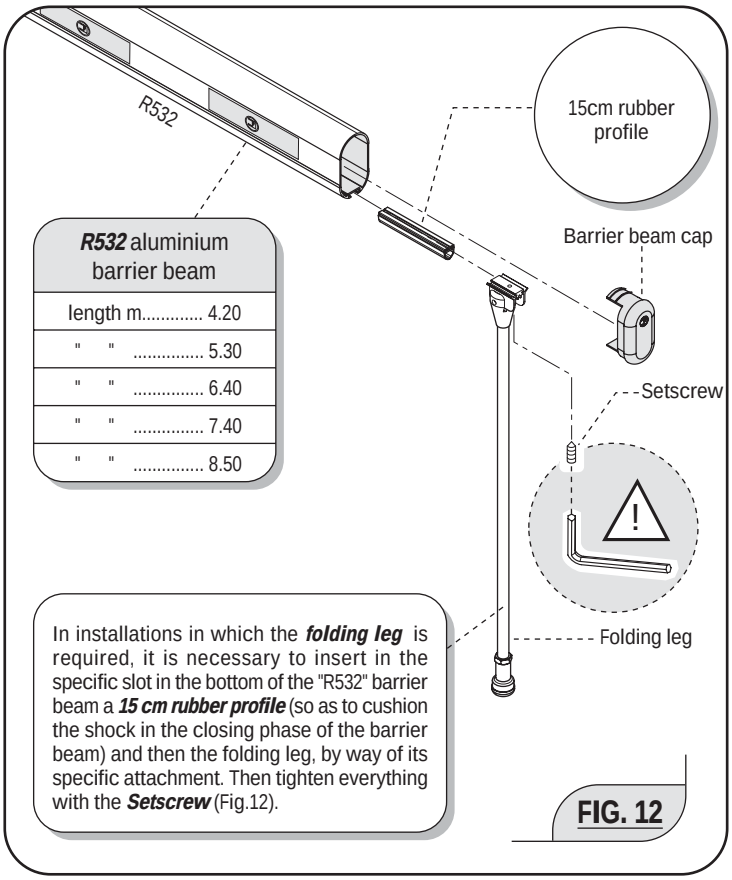
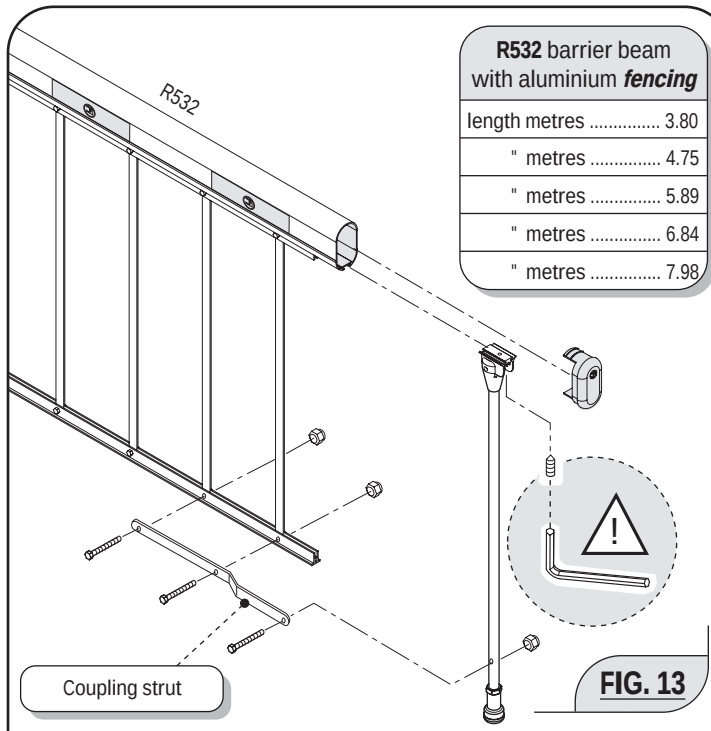
ATTACHMENT OF THE BAYT 980 FOLDING LEG



R532 aluminium barrier beam
length m..... 4.20
" " 5.30
" " 6.40
" " 7.40
" " 8.50

In installations in which the ***folding leg*** is required, it is necessary to insert in the specific slot in the bottom of the "R532" barrier beam a ***15 cm rubber profile*** (so as to cushion the shock in the closing phase of the barrier beam) and then the folding leg, by way of its specific attachment. Then tighten everything with the ***Setscrew*** (Fig.12).

FIG. 12



R532 barrier beam with aluminium ***fencing***
length metres 3.80
" metres 4.75
" metres 5.89
" metres 6.84
" metres 7.98

FIG. 13

In the event that the fencing is to be installed it is also necessary to attach the ***coupling strut*** between the leg and the fencing, utilising the relative nuts and bolts (Fig. 13)

INSTALLATION OF COUNTERWEIGHTS ON THE BAYT 980

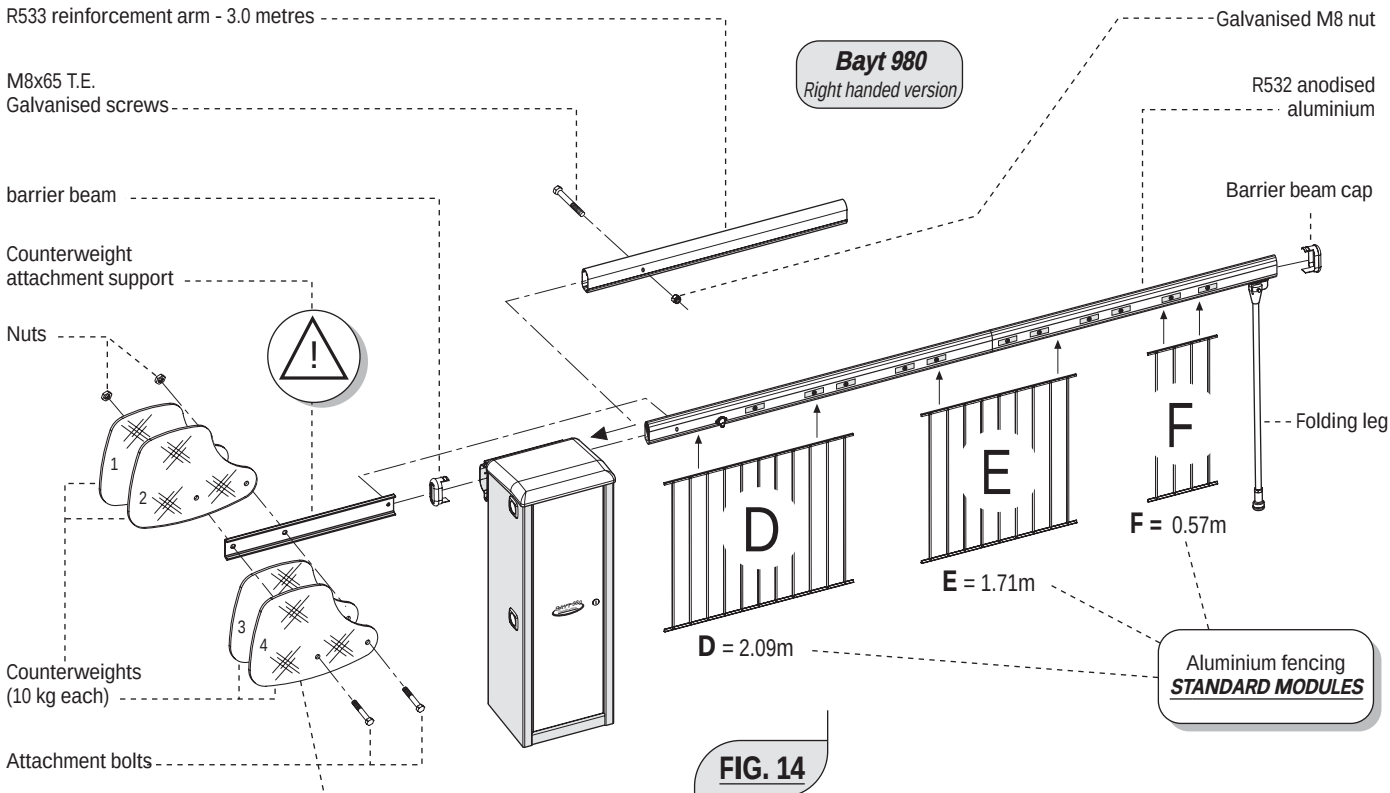


FIG. 14

In the Bayt 980 installation with barrier beams that are 6.40 metres in length or longer with fencing, it is necessary to also attach ***counterweights*** with nuts, bolts and attachment support. (Fig. 14).

Important: the number of counterweights in different installations varies according to the length of the barrier beams attached and to the presence or not of the fencing. (See table Fig. 34, page 20).

Important: the length of the counterweight attachment bolts varies with the number of counterweights needed.

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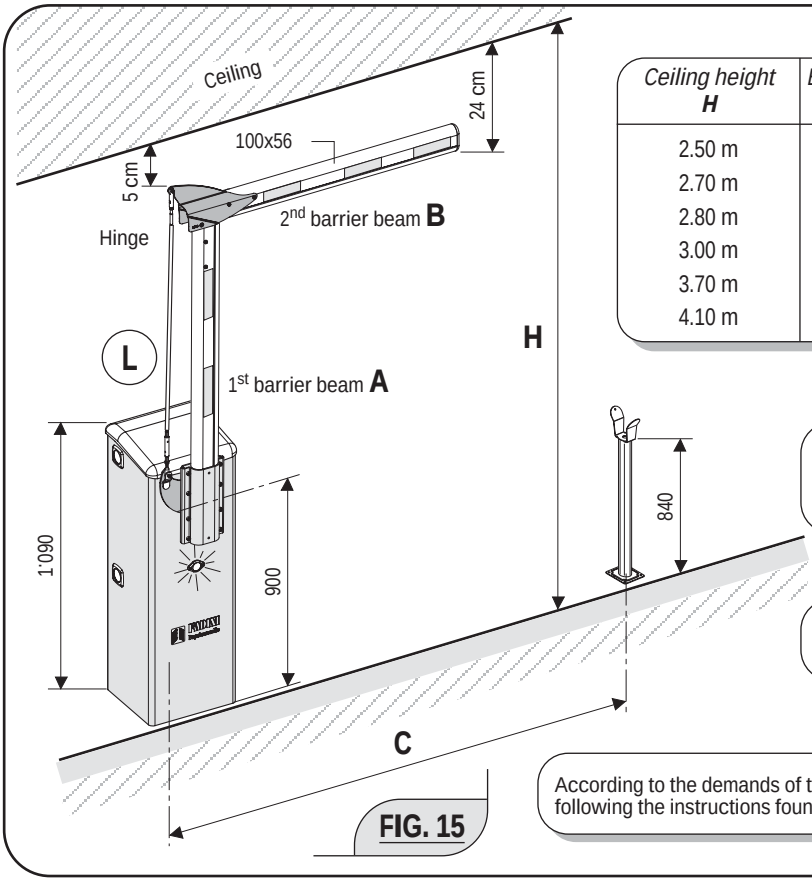

FIG. 15

Ceiling height ***H***	*Barrier beam length* ***A***	*Metal cable length* ***L***	*Opening time*
2.50 m	1.60 m	1.25 m	4 sec
2.70 m	1.80 m	1.45 m	4 sec
2.80 m	1.90 m	1.55 m	4 sec
3.00 m	2.10 m	1.75 m	8 sec
3.70 m	2.80 m	2.45 m	8 sec
4.10 m	3.20 m	2.85 m	8 sec

- The **B** barrier beam is provided in the lengths of 2.10 metres or 3.20 metres according to the roadway closure **C** to be covered.
- The length **C** is given by the sum of **A** + **B**

Ref. Drawing ***5257*** - Bayt 980 already prepared for the coupling.
- ***LEFT*** version -

According to the demands of the installation it is possible to apply a ***hinge*** coupling to the Bayt 980 following the instructions found in Fig. 15.

INSTALLATION OF THE BAYT 980 WITH MAGNETIC LOOP

1. Vehicle presence **Detector**
2. **Bipolar electrical cable** for connection to the **Detector**
3. Trench for the embedding of the magnetic loop
4. **Derivation well** for the performance of the connections **between the multi-polar** 4 wire **cable and the bi-polar Detector** cable
5. Union of the wires to realise the **magnetic loop**

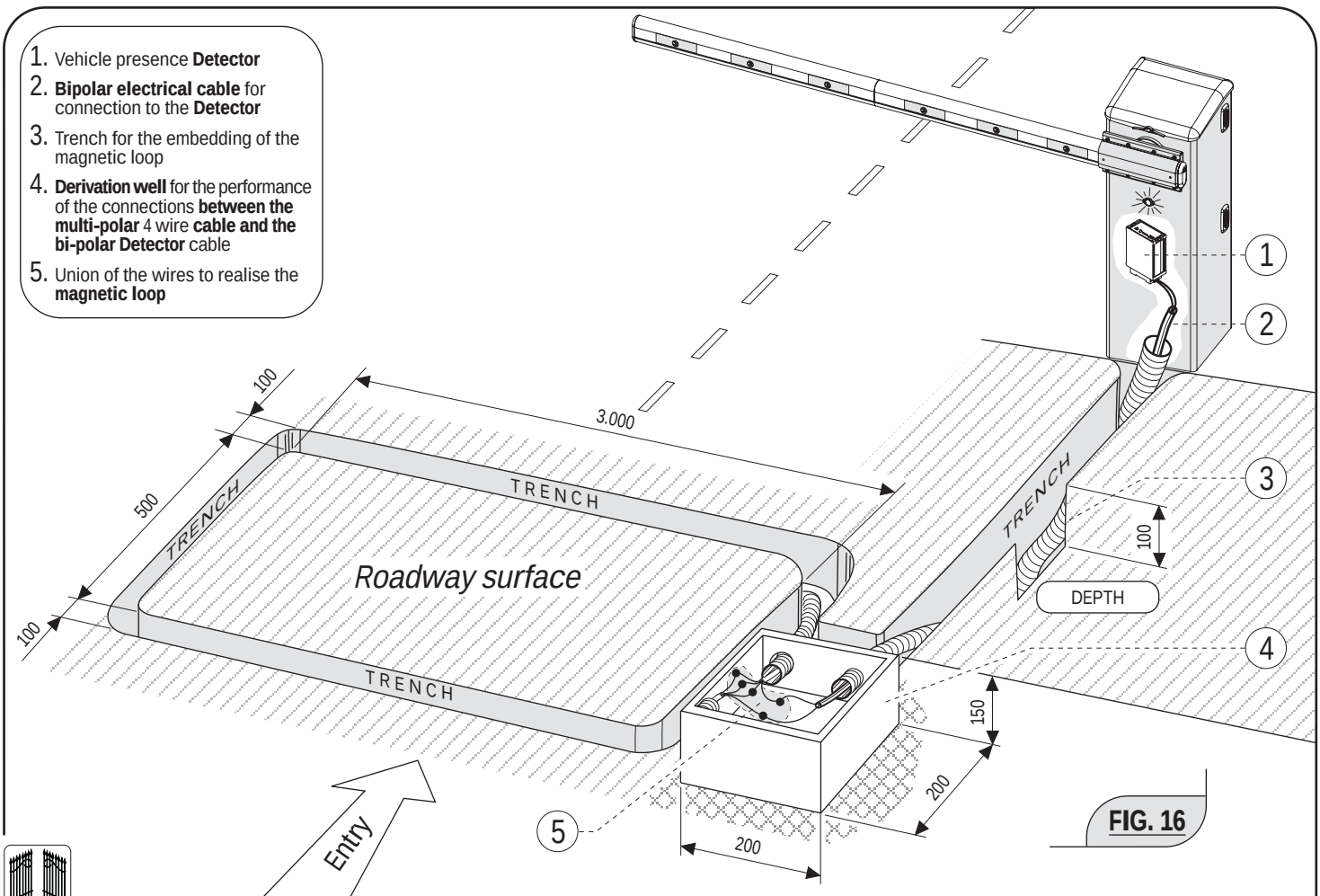

FIG. 16

For the installations that require the utilisation of a ***magnetic loop*** it is recommended that the instructions found in Fig. 16 be followed, making reference to the connections indicated in Fig. 20 on Page 10 and on the instruction sheet attached to the magnetic loop. (Ref. Drawing 2126).

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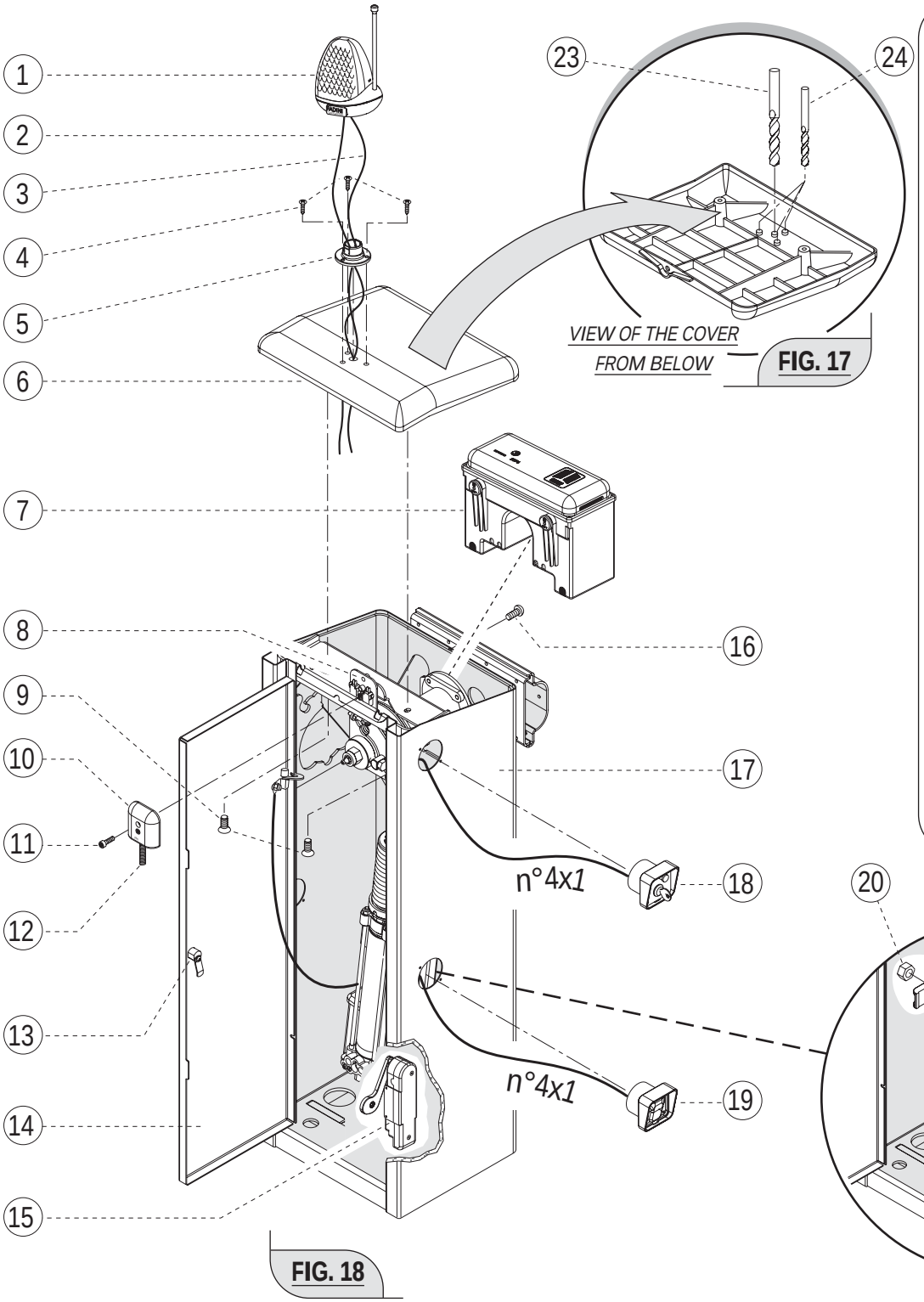

FIG. 18

FIG. 17

1. **Miri 4** flasher with **Birio A8** aerial (optional)
2. Miri 4 **flasher cable** with 2 x 1.5 wires
3. RG58 **aerial cable**
4. M5 **Screws** (3 pieces.)
5. **Vertical coupling** for Miri 4
6. **Cover** to disassemble, once the three attachment screws for the Bayt 980 are removed
7. **Control box** with **Elpro 980** elect. Prog.
8. **Limit switch** with spring trip mechanism
9. M8x16 TSEI Stainless Steel **Screws** (2 pieces.)
10. **Limit switch cover**
11. M6x25 TEI Galvanised **Screws** (1 piece.)
12. Limit switch **spring**
13. Door **lock**
14. **Door**
15. **Cabinet door switch** for general electrical power disconnection
16. M8x16 TBEI Stainless Steel **Screw** (1 piece.)
17. Bayt 980 **housing cabinet**
18. **Prit 19** keyed selector switch (optional)
19. **Polo 44** Photocell (optional)
20. M8 **Nut**
21. **Lock stop cabinet side** hole cover
22. Protective **cover cap**
23. **Ø10.5** Central stud drill hole
24. **Ø4.2**-3 studs drill holes

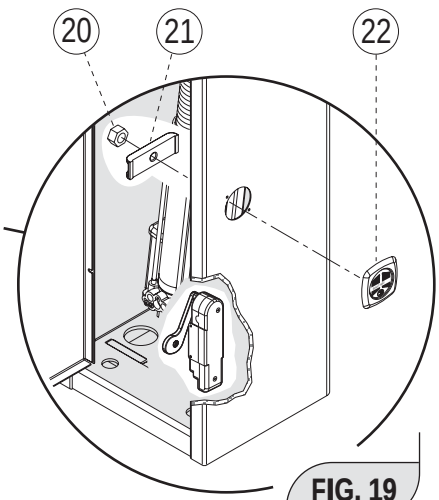

FIG. 19

- Loosen and remove the ***three "M8" attachment screws*** (9 and 16) of the ***cabinet cover*** (6) (Fig. 18).
- Turn the ***cover*** (6) upside down and drill with a 4.2 mm diameter bit and thread the three M5 studs (24) for the attachment of the ***"Miri 4"*** flasher (1) (Fig. 17).
- The central stud of the cover (23) must be drilled out with a 10.5 mm diameter bit to enable the passage of the electrical power supply cable for the ***"Miri 4"*** flasher and for the possible insertion of the ***"RG58"*** coaxial cable for the ***"Birio A8"*** aerial (Fig. 17).
- Then run the electrical cables through the central 10.5mm diameter hole and attach the vertical coupling (5) for the ***"Miri 4"*** flasher (1) with the three ***"M5"*** screws (4) on the outside of the cover (Fig.18).
- Replace the cover on the ***housing cabinet*** (Ref. 17) and attach it with the three M8 screws so as to cover the Bayt 980 cabinet, as shown in Fig. 18.

In order to install the Polo 44 photocells and the Prit 19 selector switch on the housing cabinet, it is necessary to remove the ***protective covers*** (22) unscrewing the ***M8 nut*** (20) from inside of the cabinet and then removing the ***stop plate*** (21) (Fig. 19). The ***housing cabinet*** is in this way prepared for the attachment of all of the operational accessories (Fig.18).

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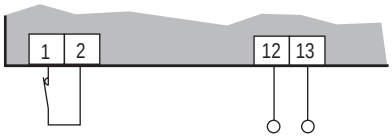
ELECTRICAL CONNECTIONS TO THE ELPRO 980 PROGRAMMER

Photocells or Magnetic Loops



NC CONTACT FOR PHOTOCELLS OR MAGNETIC LOOPS

24V OUTPUT (MAX LOAD 350 mA: 2 PAIRS OF PHOTOCELLS 1 RADIO RECEIVER)

DIP-SWITCH 1:

1 ON: Photocell or loop stops movement in opening and inverts in closing or with obstacle removed

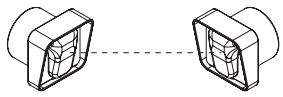
OFF: Photocell or loop does not stop movement in opening and inverts in closing or in presence of obstacle

DIP-SWITCH 9:

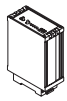
9 ON: During the pause in Automatic (Dip-Switch 3 = ON) upon passage in front of the 2nd Photocells or the Loop it closes again

OFF: Does not close upon passage in front of the 2nd Photocells

Polo 44 Photocell

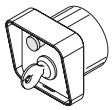


Receiver Projector

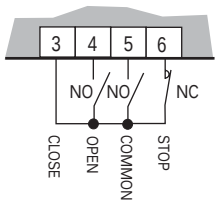


Metallic mass detector for opening contact

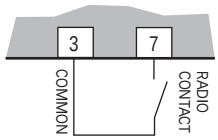
Button panel:



Prit 19
Keyed selector



Radio contact:



- Open/Close (normal)
- Reverse direction on each impulse
- Step by step

DIP-SWITCH 2:

2 ON: Does not reverse on opening

OFF: Reverses direction on every impulse

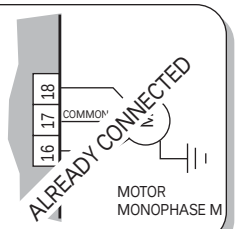
DIP-SWITCH 5:

5 ON: Step by Step with intermediate stop

OFF: Normal operation

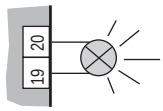
Motor (ALREADY CONNECTED):

WORK TIME: TRIMMER not required, the programmer works only with the limit switches and has a pre-set **maximum work time limit of 25 sec.** (BAYT 980 8 metre barrier beam with fencing: maximum 19 sec.)



External flasher:

Miri 4



230V 25W max

DIP-SWITCH 4:

4 ON: Pre-flashing

OFF: Without pre-flashing

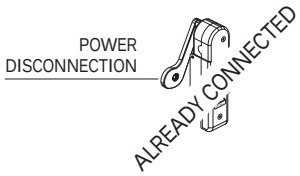
DIP-SWITCH 8:

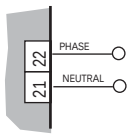
8 ON: Flasher deactivated during pause in automatic

OFF: Flashes during pause in automatic

Power Supply:

The PCB card is supplied with power after having connected the power disconnection on the 230V- 50Hz line.

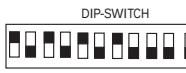




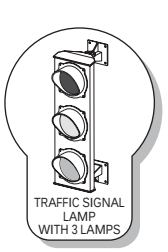
PCB POWER SUPPLY
230V ±10% 50Hz
MONOPHASE

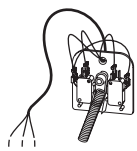
Dip Switches:

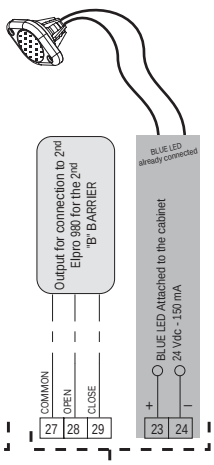
1= **ON** Photocell does not stop movement in opening
2= **ON** Radio does not reverse (and does not stop) in opening
3= **ON** Closes in Automatic
4= **ON** Pre-flashing Active
5= **ON** Radio step by step with intermediate stop
6= **ON** Hold - on - switched contact service (Dip 4=OFF and Dip 3=OFF)
7= **ON** Hold - on - switched service only on closing
8= **ON** Flasher off in pause
9= **ON** In opening and in pause closes back after photocell passage
10= **ON** Performs any operation of opening or closing only after having verified that all safety systems are active and none of these is activated
11= **OFF** blank to be defined
12= **ON** Ables function with slave PCB (slave mode)

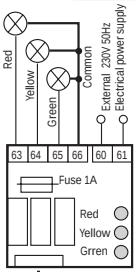


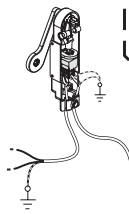
ATTENTION: for a detailed explanation of all of the functions among which there is the Automatic/Semiautomatic, hold - on - switched command and clock connection, it is suggested that one refers to the Elpro 980 instruction book.



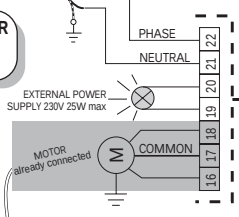


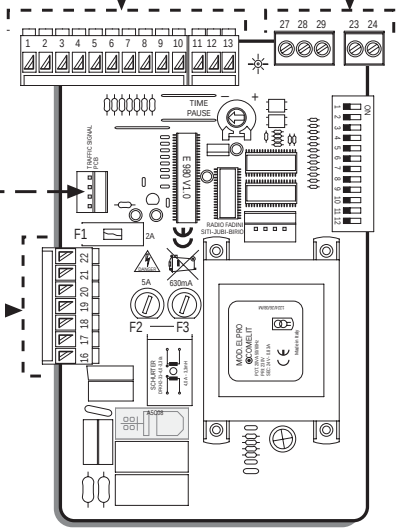


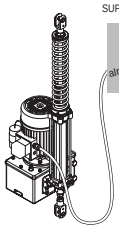




EXTERNAL POWER SUPPLY 230V - 50Hz







Cos 982
- ALREADY CONNECTED -

DESCRIPTION OF THE ELPRO 980 TERMINALS AND ACCESSORIES ALREADY CONNECTED

FADINI the gate opener
Made in Italy

FIG. 20

Electrical connections:

1) **Elpro 980-A:** Perform all of the connections necessary for the operation of the Bayt 980-A. Any command accessories, radio PCB or whatnot, must be connected exclusively to the Elpro 980-A.

2) **Elpro 980-B:** Power the PCB, jumper the NC connections (Stop, photocell and safety switches) and finally connect the motor and the limit switches of the Bayt 980-B
Set the Dip-Switch 12 = **ON**

DIP-SWITCH N°12=ON

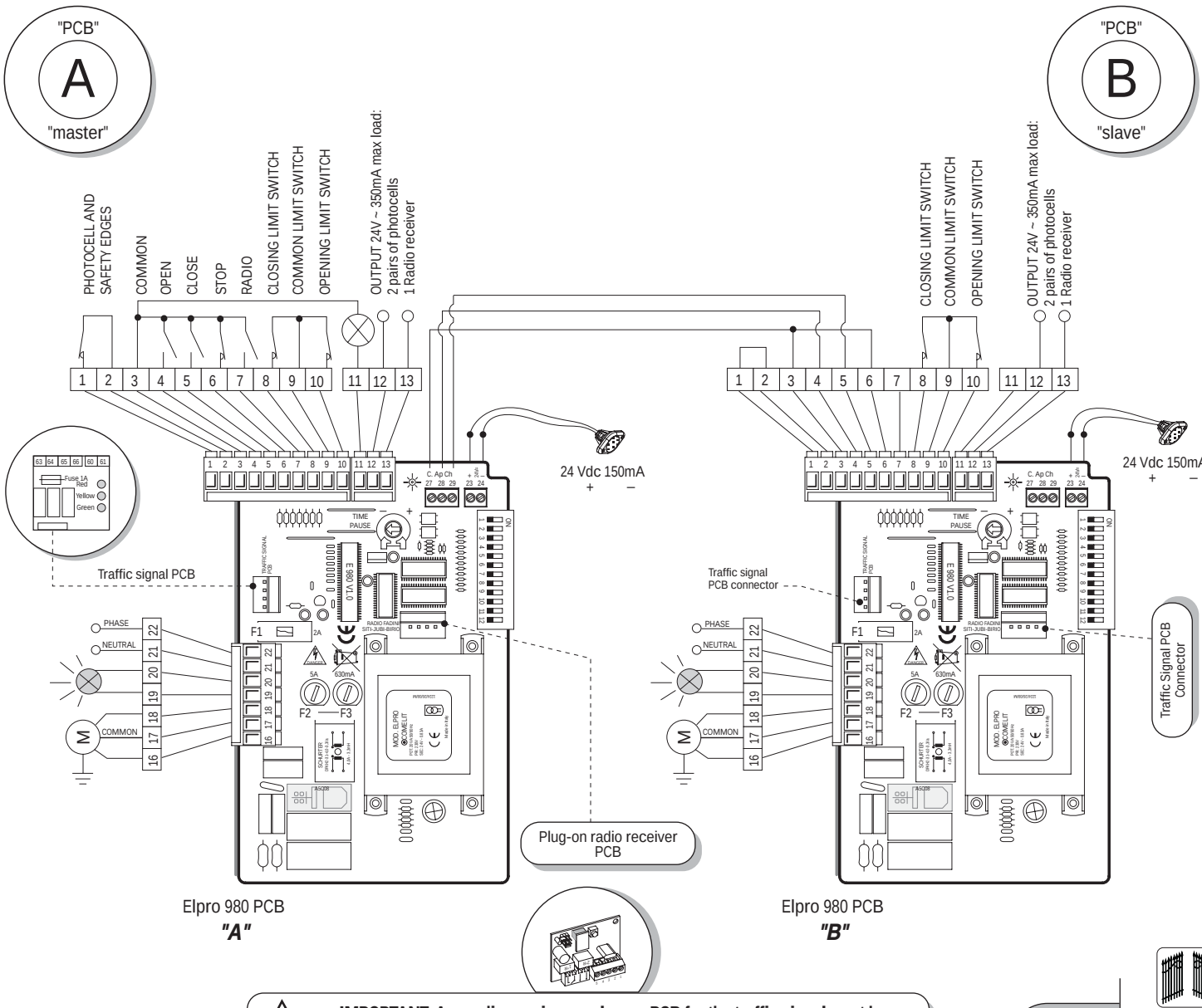
ON = 2 Bayt 980s in simultaneous mode
OFF= single Bayt 980 master mode
12

3) Connect the **27, 28, 29** terminals of the **Elpro 980-A (master)** respectively with the **3, 4, 5** terminals of the Elpro 980-**B (slave)**.

View No.2 ***BAYT 980***
A - Left "LH"
B - Right "RH"

Before completing all of the electrical connections necessary, distinguish the Elpro 980 of the **A "Master"** Barrier, which commands the Elpro 980 in the **B - "Slave"** Barrier.

ATTENTION: in the case of simultaneous barriers it is suggested that they are set with an equal barrier beam length and speed, otherwise the master barrier between the two must be that with the longer barrier beam length or that with the slowest speed.



IMPORTANT: Any radio receiver or plug-on PCB for the traffic signal must be connected to the Master PCB A

FIG. 21

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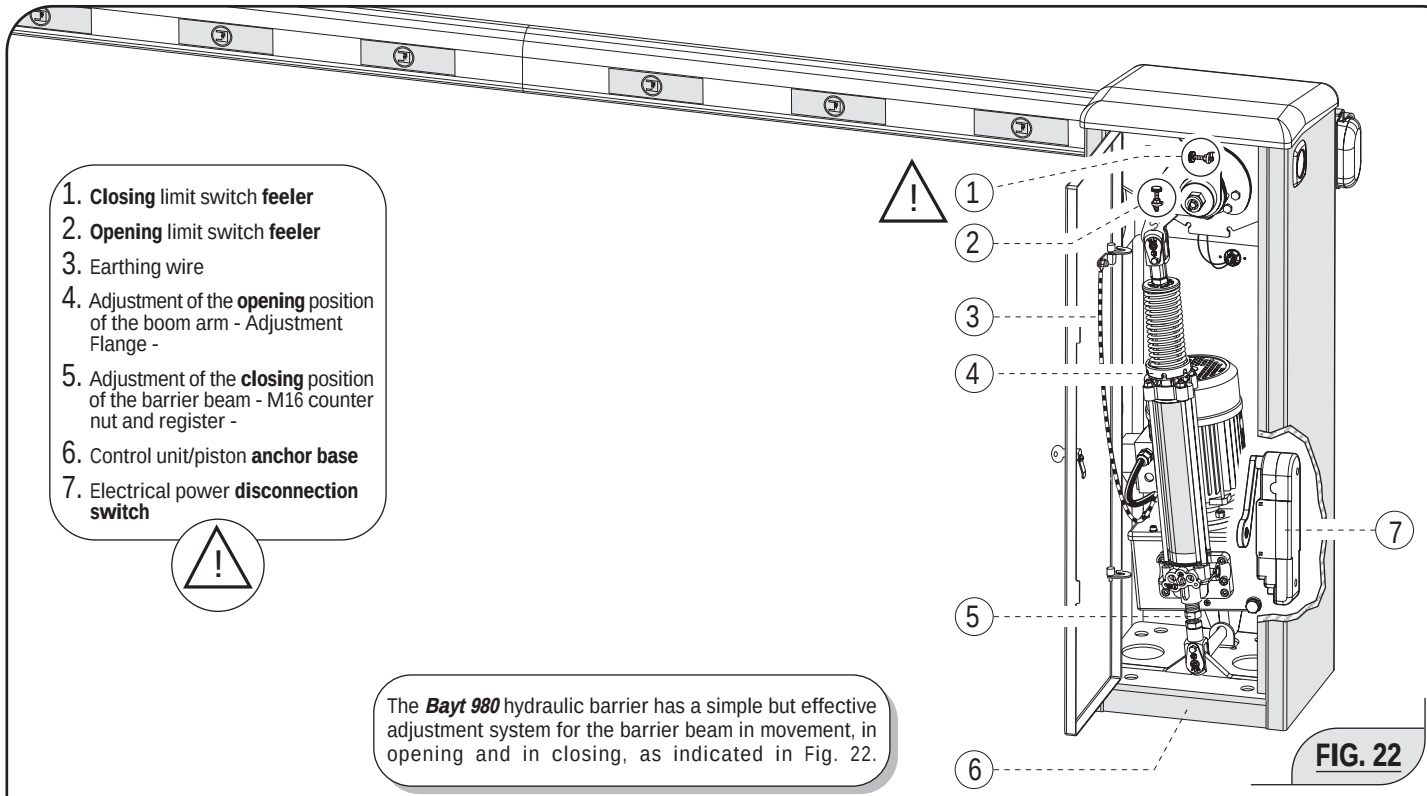
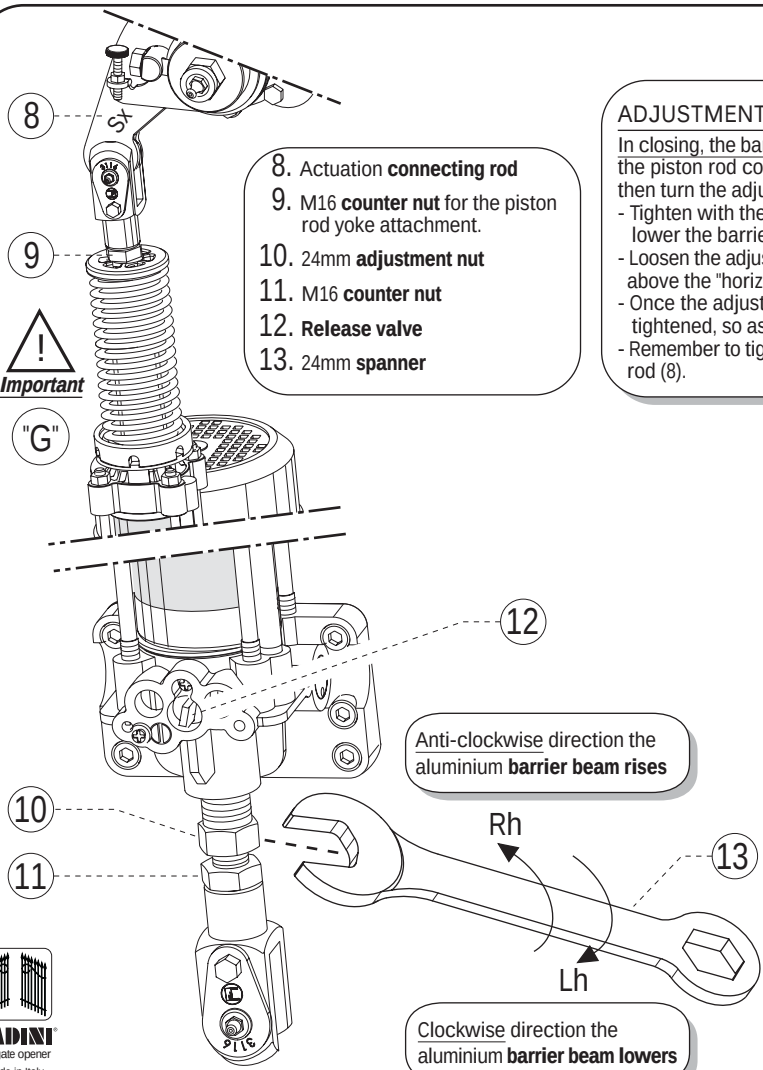


1. **Closing** limit switch **feeler**
2. **Opening** limit switch **feeler**
3. Earthing wire
4. Adjustment of the **opening** position of the boom arm - Adjustment Flange -
5. Adjustment of the **closing** position of the barrier beam - M16 counter nut and register -
6. Control unit/piston **anchor base**
7. Electrical power **disconnection switch**

The ***Bayt 980*** hydraulic barrier has a simple but effective adjustment system for the barrier beam in movement, in opening and in closing, as indicated in Fig. 22.

FIG. 22

Important: at the end of the operation it is necessary to check and verify the limit switches and if needed adjust the closing limit switch feeler (1) so that the electrical is operated when the barrier beam arrives at its horizontal stop position.



8. Actuation **connecting rod**
9. M16 **counter nut** for the piston rod yoke attachment.
10. 24mm **adjustment nut**
11. M16 **counter nut**
12. **Release valve**
13. 24mm **spanner**

Important

ADJUSTMENT OF THE BARRIER BEAM IN ***CLOSING POSITION*** (Fig. 23):

In closing, the barrier beam must be horizontal; therefore the adjustment is performed with the piston rod completely retracted. First the M16 (11) counter nut must be loosened and then turn the adjustment with the 24 mm spanner (Ref. 13)

- Tighten with the 24 mm spanner to the left - clockwise - the adjustment nut (10), so as to lower the barrier beam beyond the "horizontal line".
- Loosen the adjustment nut (10) to the right - anti-clockwise - so that the barrier beam rises above the "horizontal line".
- Once the adjustment has been made, the M16 counter nut previously loosened must be tightened, so as to lock the ***Bayt 980*** valve attachment yoke base.
- Remember to tighten the M16 counter nut (9) of the piston rod yoke ferrule to the actuation rod (8).

- Turning the adjustment nut "E24" (Ref. 10) to the left - Lft - clockwise: the barrier beam goes beyond the horizontal line and lowers

= instead =

- Turning the adjustment nut "E24" (Ref. 10) to the right - Rt - anti-clockwise: the barrier beam stays above the horizontal line and rises

Anti-clockwise direction the aluminium **barrier beam rises**

Clockwise direction the aluminium **barrier beam lowers**

"G" ***Important***

The shaft-spring with the yoke must be totally retracted in its rest position, for the adjustment of the barrier beam in horizontal.

FIG. 23

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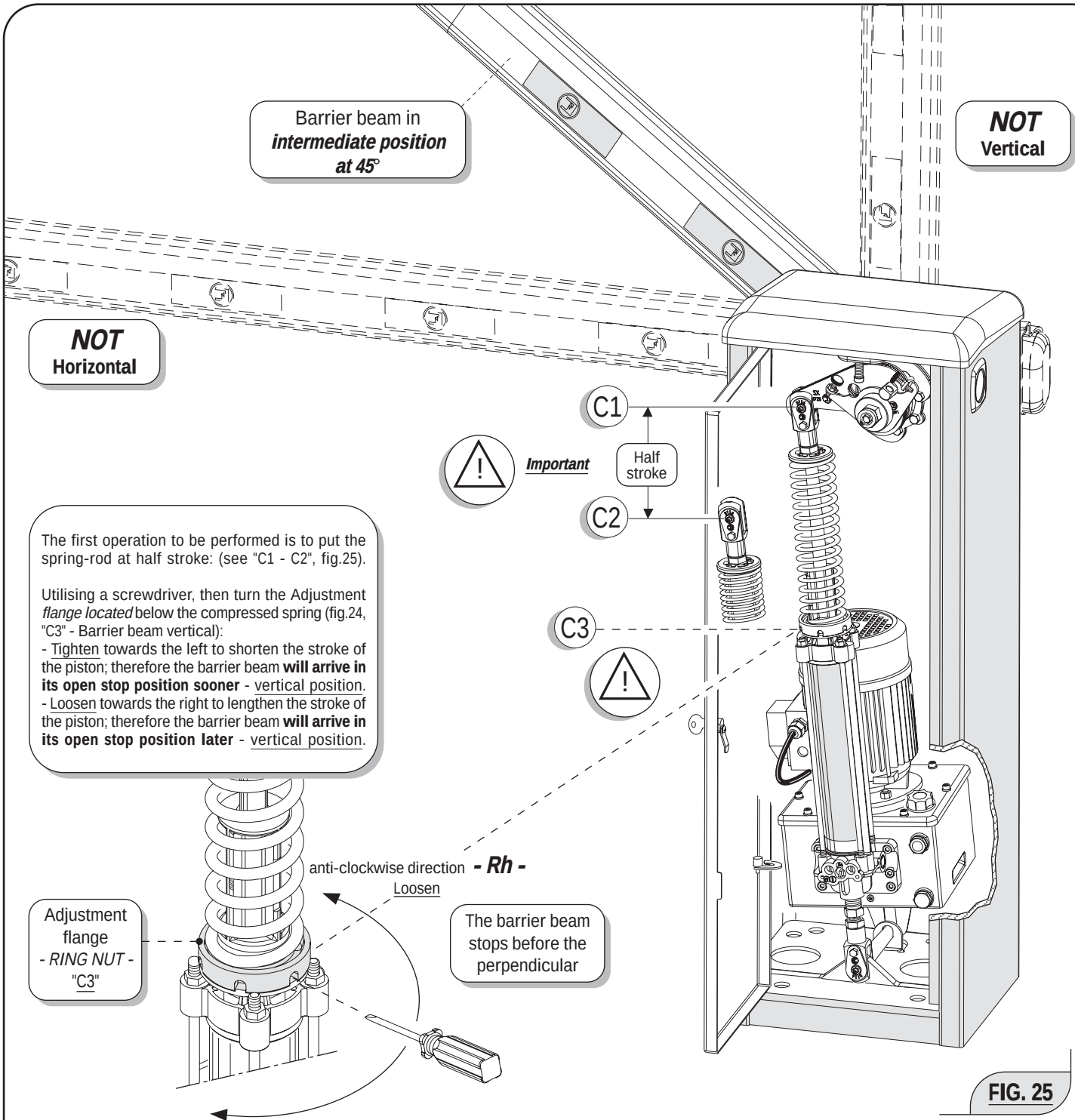

FIG. 24

FIG. 25

Important:
The position allowed for the adjustment of the "C3" ring nut is only with the rod/spring at half stroke - barrier beam position at 45°, "C1-C2".
Avoid adjustment of the ring nut with the rod completely extended or completely retracted.

ADJUSTMENT OF THE BARRIER BEAM IN ***OPENING POSITION***

It is important that the entire operation comes about when the barrier beam **is not in its vertical or horizontal stop position** (fig 25). With the barrier **beam in an intermediate position** at 45°and the rod therefore at its half stroke point, it is possible to adjust the barrier beam in opening.

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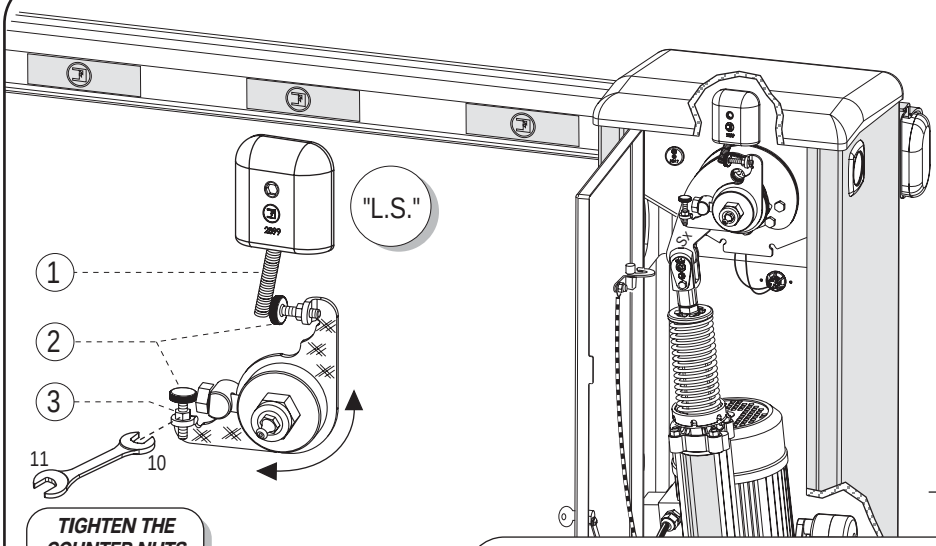
the gate opener
Made in Italy



Important:
At the moment of test inspection in the factory the position of the two feelers was already correctly adjusted with the position of the barrier beam in opening and closing vertical and horizontal respectively.

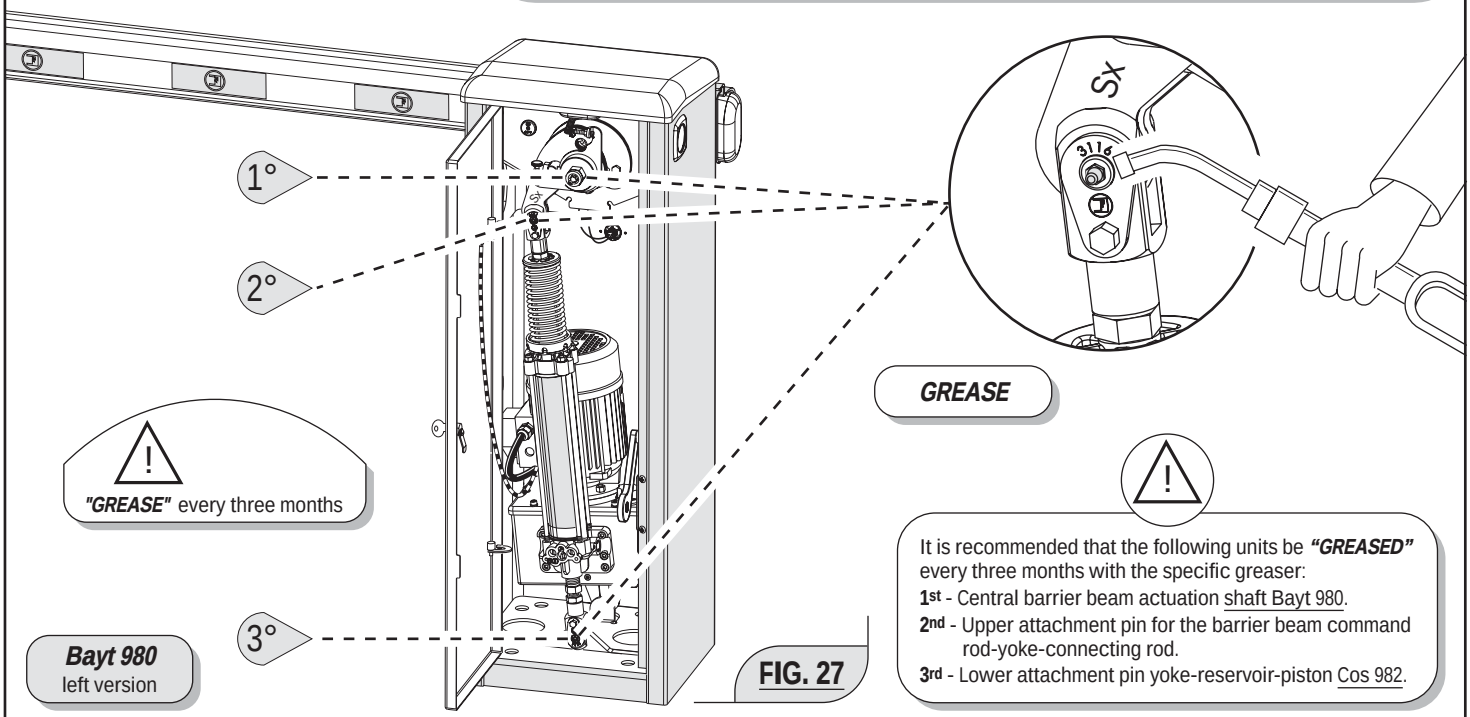
FIG. 26

1. Flexible limit switch **lever**
2. L.S. adjustable ridged **feelers**
3. M6 **Counter nut** in its two positions

Once the procedure on the stop points of the Bayt 980 barrier beam has been finished, it is possible to adjust the opening and closing limit switches with the "**L.S." adjustable ridged feelers**, which contact the flexible limit switch lever. After having verified the correct operation of the flexible lever (both in vertical and in horizontal) on the limit switch system micro-switch, it is necessary to securely tighten the single counter nuts (Fig. 26).

ORDINARY MAINTENANCE

Periodically it is necessary to perform maintenance to the Bayt 980 barrier, injecting grease by way of suitable **greasers** (Fig. 27).



"GREASE" every three months

FIG. 27

It is recommended that the following units be ***"GREASED"*** every three months with the specific greaser:

1st - Central barrier beam actuation shaft Bayt 980.

2nd - Upper attachment pin for the barrier beam command rod-yoke-connecting rod.

3rd - Lower attachment pin yoke-reservoir-piston Cos 982.

For optimum performance of the system over time according to safety regulations, it is necessary to perform proper maintenance and monitoring of the entire installation (for the automation, the electronic equipment installed and for the cabling connected to these). Only qualified technical personnel must perform the entire installation, filling out the Maintenance Manual indicated in the specific Regulation Book (to be requested):

- Hydraulic mechanism: maintenance inspection check at least every 6 months;
- Electronic equipment and safety systems: inspection check at least once every month;
- Ordinary and extraordinary maintenance must be agreed on between the principal and the maintenance firm.
- Dispose of the packaging containers, such as the cardboard, plastic sheeting, foam padding, etc., through specialised waste disposal firms. **DO NOT DISPOSE OF EITHER WASTE OR TOXIC SUBSTANCES INTO THE ENVIRONMENT.**
- In the event of the removal of the "Cos 982" Actuator, **do not cut the electrical wires**, but remove them from the terminal loosening the setscrews in the derivation box.

FADINI
the gate opener
Made in Italy

Important:
At the moment of the test inspection in the factory the thrust force has already been calibrated and set as a function of the speed and the length of the barrier beam.

Anti-Clockwise (LOOSENING): decreases thrust force

Clockwise (TIGHTENING): increases thrust force

To obtain a greater thrust force it is necessary to tighten the regulators in a clockwise direction, while turning them in an anti-clockwise direction gives a lesser thrust force (Fig. 28).

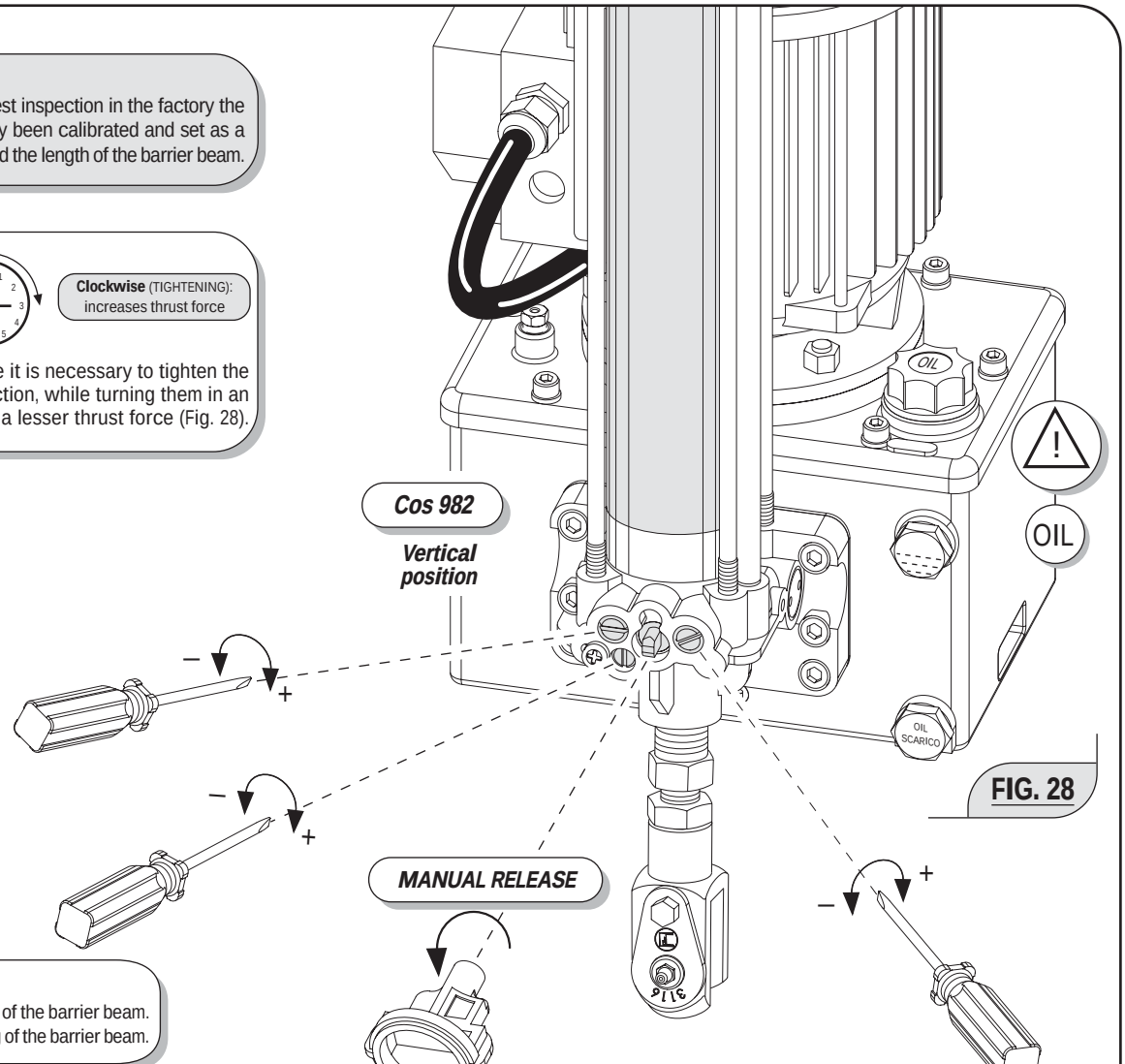


FIG. 28

Red regulator:
adjustment of the thrust of the **opening** boom arm

Slowing of the barrier beam:
\+ ***Tightening*** increases the braking of the barrier beam.
– ***Loosening*** decreases the braking of the barrier beam.

The braking of the Bayt 980 barrier beam in its horizontal can be finely adjusted to the required degree by way of the screw adjustment located on the valve body, in the Slowing position. Fig.28

To ***release:***
turn the release ***key in an anti-clockwise*** direction (do not loosen any more than one turn)

Green regulation:
adjustment of the thrust of the horizontal ***closing*** barrier beam

ATTENTION ***Important***

In the situation in which there is an electrical power failure, it is possible to make the movement of the barrier beam manual by acting on the regulator located between the two regulators for maximum and minimum pressure with the specific unlocking spanner (Manual Release) Fig. 28.

In the "Cos 982" hydraulic piston it is possible to adjust the thrust force necessary for the movement of the Bayt 980 barrier beam, with the possibility of the acting on the adjustment regulator for the maximum and the minimum hydraulic circuit pressure in the oil reservoir valve body. This will assure a regular movement and total anti-crush protection at the same time. The two regulators, one Red and one Green, are positioned frontally on the valve block, at the base of the barrier beam actuation piston.
- ***Red:*** regulator that adjusts the aluminium barrier beam vertical opening thrust.
- ***Green:*** regulator that adjusts the aluminium barrier beam horizontal descent

IMPORTANT:
Do not put oil into the reservoir.
It has already been filled.

= ***APR13*** =

To check the oil level in the reservoir of the Cos 982, the piston must be perpendicular to the housing cabinet of the ***Bayt 980***.

OIL

Do not put oil into the reservoir.
It has already been filled.

Bayt 980
hydraulic

Important:
At the moment of the test inspection in the factory the thrust force has already been calibrated and set as a function of the speed and the length of the boom arm.

FADINI
the gate opener
Made in Italy

THE DECLARATION OF CONFORMITY
of the Manufacturer

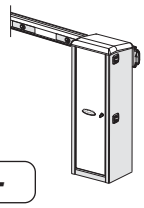
Manufacturing Firm:

meccanica FADINI snc.

Address:

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

DECLARES UNDER ITS OWN RESPONSIBILITY THAT:



Model:

BAYT 980
Hydraulic

- painted -

Hydraulic barrier for driveways

IS COMPLIANT TO THE MACHINE DIRECTIVE.....98/37/CE

FURTHERMORE:

The ***Bayt 980*** is marketed to be installed as an "automated system" with original accessories and components indicated by the Manufacturing Firm.
The automated mechanism, according to the provisions of the law is a "machine" and therefore the installer must apply all safety regulations to it. The same installer must also issue his/her own Declaration of Conformity. The manufacturing firm assumes no responsibility for the improper use of the product. The product has been deemed compliant with the following specific regulations:
- Analysis of Risks and successive procedures for eliminating them: **EN 12445 & EN 12453**
- Low Voltage Directive **2006/95 CE**
- Electromagnetic Compatibility Directive **2004/108/CEE & 92/31 CEE**

With the purpose of certifying the product, the Manufacturer declares under his own responsibility the compliance with the EN 13241-1 PRODUCT REGULATIONS

Meccanica Fadini s.n.c.

Date: 09-06-08

The Manager

CE

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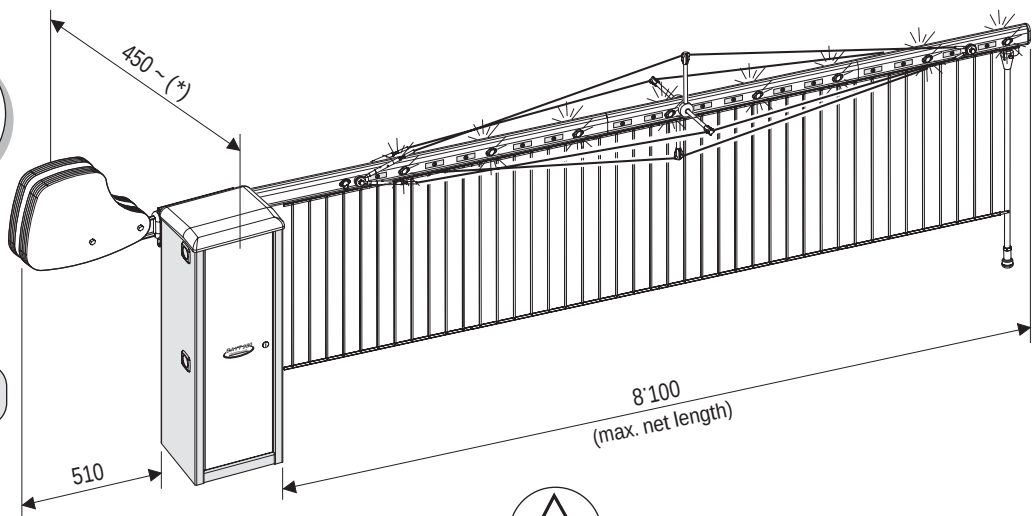
GB

GENERIC INSTALLATION WITH COUNTERWEIGHTS, CABLES, FENCES AND LED LAMPS



Important

Bayt 980
Right handed version

FIG. 29

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(*) Dimensions are variable based on the number of counterweights attached. See Page 20.

THE DECLARATION OF CONFORMITY
of the Manufacturer

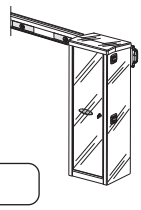
Manufacturing Firm:

meccanica FADINI snc.

Address:

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

DECLARES UNDER ITS OWN RESPONSIBILITY THAT:



Model:

BAYT 980
Hydraulic

- inox -

Hydraulic barrier for driveways

IS COMPLIANT TO THE MACHINE DIRECTIVE.....98/37/CE

FURTHERMORE:

The ***Bayt 980*** is marketed to be installed as an "automated system" with original accessories and components indicated by the Manufacturing Firm.
The automated mechanism, according to the provisions of the law is a "machine" and therefore the installer must apply all safety regulations to it. The same installer must also issue his/her own Declaration of Conformity. The manufacturing firm assumes no responsibility for the improper use of the product. The product has been deemed compliant with the following specific regulations:
- Analysis of Risks and successive procedures for eliminating them: **EN 12445 & EN 12453**
- Low Voltage Directive **2006/95 CE**
- Electromagnetic Compatibility Directive **2004/108/CEE & 92/31 CEE**

With the purpose of certifying the product, the Manufacturer declares under his own responsibility the compliance with the EN 13241-1 PRODUCT REGULATIONS

Meccanica Fadini s.n.c.

Date: 09-06-08

The Manager

CE

FADINI the gate opener Made in Italy

GB

POSSIBILITY OF INSTALLATION OF THE ALUMINIUM BARRIER BEAM WITH "LED" LAMPS

1. **Control box**
2. **Elpro 980** Electronic Programmer
3. **Cable** and **terminals** set up inside of the housing cabinet for the connection of the LED lamps
4. Bayt 980 **housing cabinet**
5. LED **lamps**
6. Small PCB for **Al. Flex 34** LED flashers with container

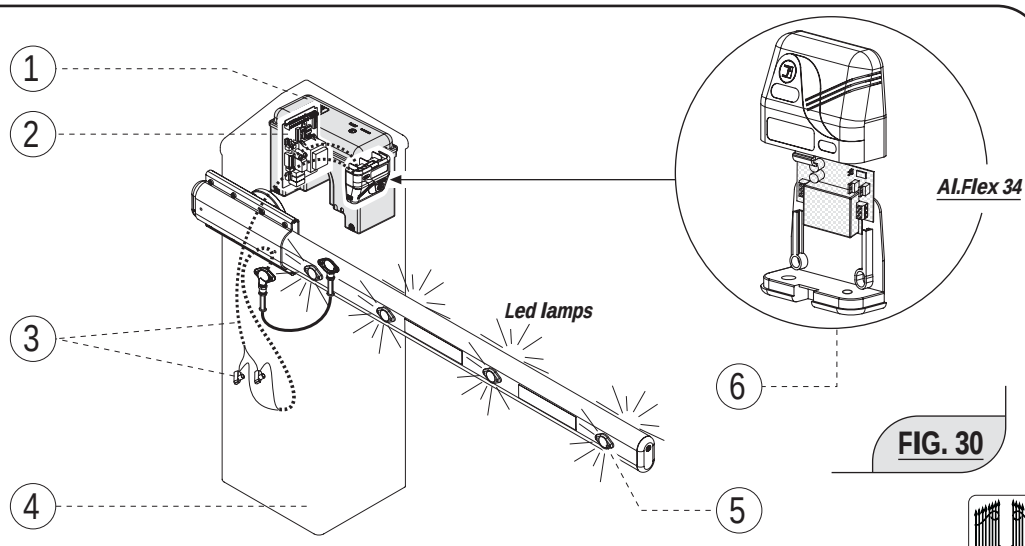


FIG. 30

In the event of an installation of the Bayt 980 with ***LED lamps*** it is possible to connect the ***Al.Flex 34*** command device and to obtain the alternating flashing without pauses or else the alternating flashing of the "flash" type (Fig.30).

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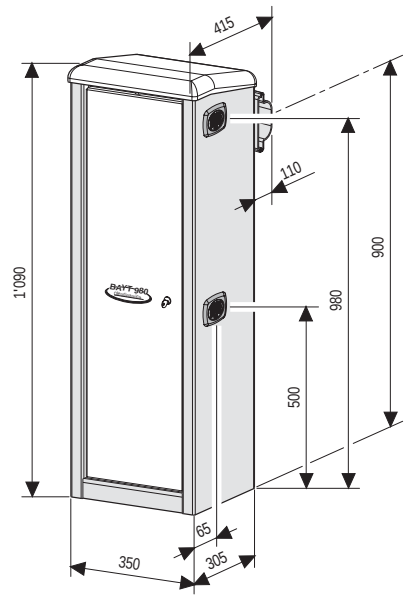
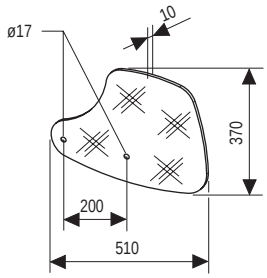
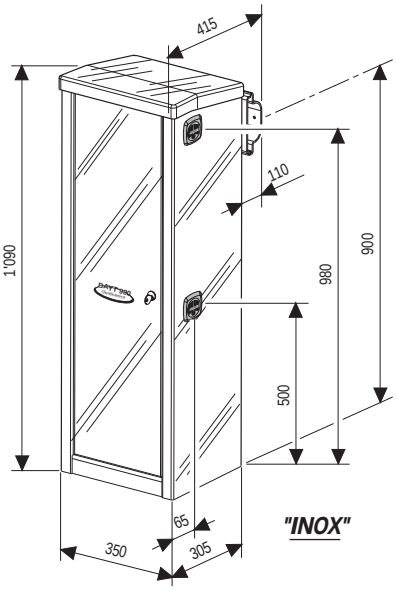


Bayt 980 complete cabinet weight.....75 kg (without barrier beam)
Colour of painted pillar..... **RAL 2002 Red**
Colour of painted cover and door..... **Textured metalized**

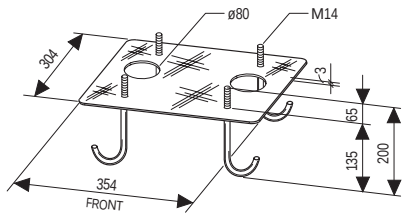


Counterweights in galvanised iron
- Weight 10 Kg each -

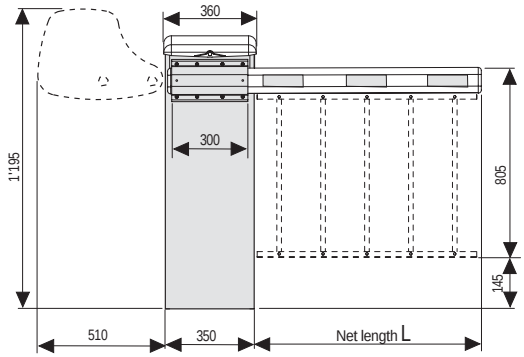


"INOX"

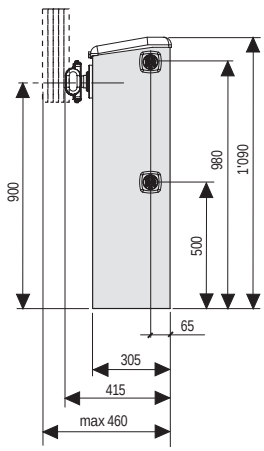
Bayt 980 complete cabinet weight ..... 75 kg (without barrier beam)
Version with cabinet, cover and door
stainless steel..... **"AISI 304" INOX**



Anchor plate 354x304 with
M14x200 galvanised anchor bolts.
Interaxis 200 x 200
Galvanised steel valid also for
Bayt 980 stainless steel



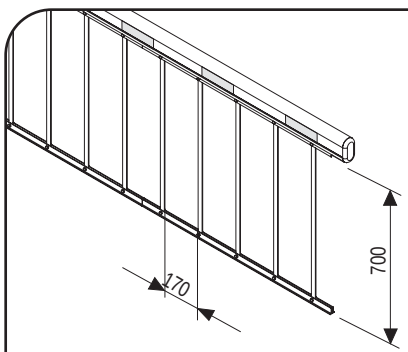
View with R532 barrier beam attachment



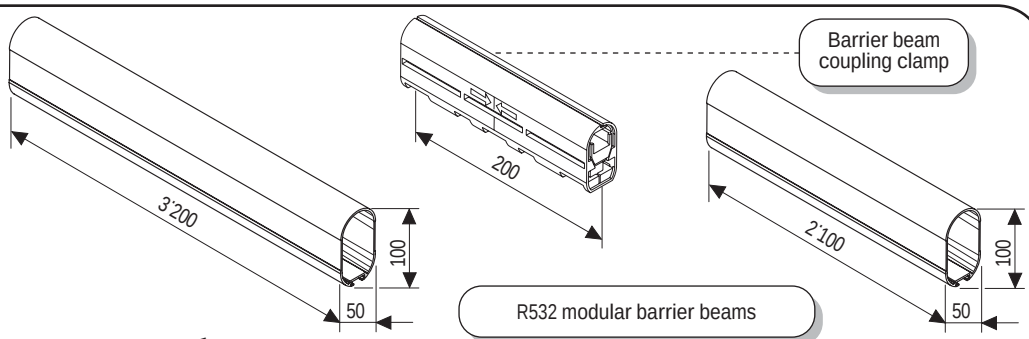
Side view photocell side

FIG. 31

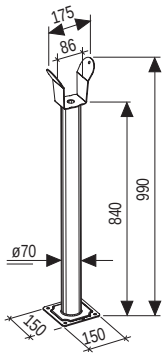
DIMENSIONS MEASUREMENTS ALUMINIUM BARRIER BEAMS, FENCE, LEG AND PEDESTAL



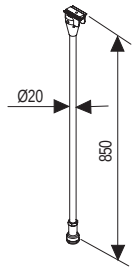
Aluminium fencing to be attached to the bottom of the barrier beam
Modules of.....0.57 m - 1.71 m - 2.09 m



R532 modular barrier beams



Fixed pedestal with yoke



Folding leg barrier beam support

FIG. 32

PERFORMANCE OF THE BARRIER IN RELATION TO OPENING TIMES

4 seconds

Service cycle: 4 s opening - 4 s pause - 4 s closing - 4 s pause
Complete cycle time ..... 16 sec
Complete cycles Opening - Pause - Closing - Pause 225/hour
Annual cycles (with 8 hours of service per day) total ..... 657'000

8 seconds

Service cycle: 8 s opening - 4 s pause - 8 s closing - 4 s pause
Complete cycle time ..... 24 sec
Complete cycles Opening - Pause - Closing - Pause 150/hour
Annual cycles (with 8 hours of service per day) total ..... 438'000

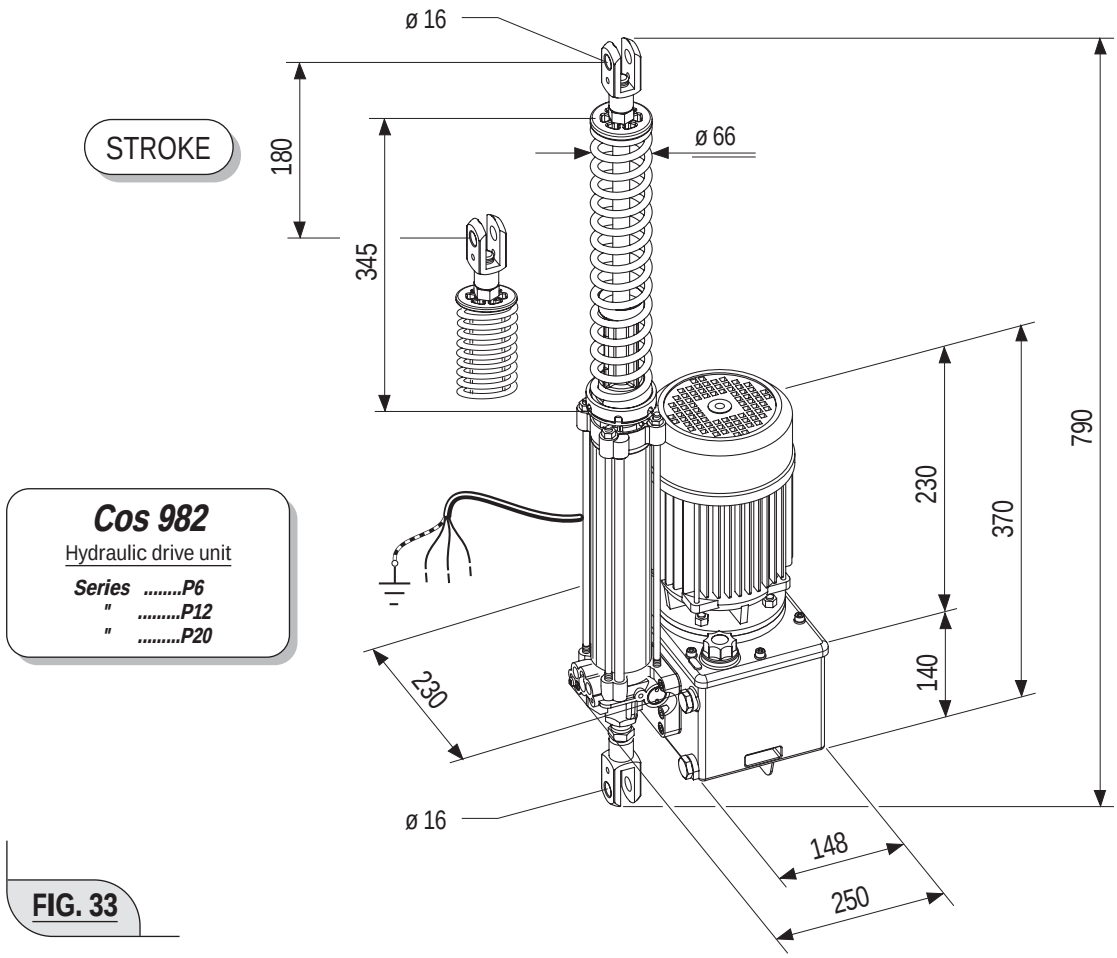
14 seconds

Service cycle: 14 s opening - 7 s pause - 14 s closing - 7 s pause
Complete cycle time ..... 42 sec
Complete cycles Opening - Pause - Closing - Pause 86/hour
Annual cycles (with 8 hours of service per day) total ..... 251'000

19 seconds

Service cycle: 19 s opening - 10 s pause - 19 s closing - 10 s pause
Complete cycle time ..... 58 sec
Complete cycles Opening - Pause - Closing - Pause 62/hour
Annual cycles (with 8 hours of service per day) total ..... 181'000

COS 982 DRIVE UNIT DIMENSION MEASUREMNTS



Cos 982
Hydraulic drive unit
Series P6
" P12
" P20

Elettric motor
ø 140 - 0.5 HP - 0.37 KW
Condenser.....20 μF

FIG. 33

TECHNICAL SPECIFICATIONS - BAYT 980 -

- Cos 982 - Hydraulic drive unit

Average operational pressure	2 MPa (20 bar)
Maximum operational pressure	4 MPa (40 bar)
Hydraulic oil type	Oil Fadini
Reservoir volume	2.5 litres
Static weight	22.5 Kg
Operational temperature	-20°C to +80°C
Protection grade	IP 673

TECHNICAL SPECIFICATION	***Electric Motor***
Power yield	0.37 KW (0.5 HP)
Electrical power supply	230 V
Frequency	50 Hz
Current Absorbed	2.4 A
Power absorbed	510 W
Condenser	20 μF
Motor rotation speed	1'350 rpm
Intermittent service	S3

Do not put oil into the reservoir.
It has already been filled.

Bayt 980
Oil-hydraulic

FADINI
the gate opener
Made in Italy

04-2010

3 sec.	no Spring	Barrier beam **3.20 m**	7 lamps	no Fence	no Cables	no Counterweights	piston **Ø30**
4 sec.	no Spring	Barrier beam **3.20 m**	7 lamps	no Fence	no Cables	no Counterweights	piston **Ø40**
		Barrier beam **4.20 m**	9 lamps				
8 sec.	with Spring	Barrier beam **4.20 m**	9 lamps	with Fence	no Cables	no Counterweights	piston **Ø40**
			9 lamps	no Fence			
		Barrier beam **5.30 m**	11 lamps				
		Barrier beam **6.40 m**	13 lamps				
14 sec.	with Spring	Barrier beam **4.20 m**	9 lamps	with Fence	no Cables	no Counterweights	piston **Ø50**
		Barrier beam **5.30 m**	11 lamps				
		Barrier beam **6.40 m**	13 lamps	no Fence			
				with Fence		Counterweights **n°4x10Kg**	
		Barrier beam **7.40 m**	15 lamps	no Fence	with Cables	Counterweights **n°3x10Kg**	
		Barrier beam **8.50 m**	17 lamps			Counterweights **n°7x10Kg**	
19 sec.	with Spring	Barrier beam **6.40 m**	13 lamps	with Fence	no Cables	Counterweights **n°4x10Kg**	piston **Ø60**
		Barrier beam **7.40 m**	15 lamps	no Fence	with Cables	Counterweights **n°3x10Kg**	
				with Fence		Counterweights **n°6x10Kg**	
		Barrier beam **8.50 m**	17 lamps	no Fence		Counterweights **n°7x10Kg**	
				with Fence		Counterweights **n°9x10Kg**	

FIG. 34

Bayt 980
Oil-hydraulic

SPECIFIC SUGGESTIONS

CE The development of the firm MECCANICA FADINI has always been based upon the guarantee of the quality of its products and on the existence of a TOTAL QUALITY CONTROL system, which has guaranteed the maintenance of quality levels over time and a constant updating of the European Regulations, in the framework of a continuous process of improvement.

Before installation on the part of qualified technical personnel, it is suggested that the Safety *Regulations Booklet* made available by Meccanica Fadini be examined.

*ATTENZION **Important***

Directive **2003/108/CE**
Disposal of electrical and electronic goods

DISPOSE PROPERLY OF SUBSTANCES HAZARDOUS FOR THE ENVIRONMENT

Installer's stamp

meccanica FADINI

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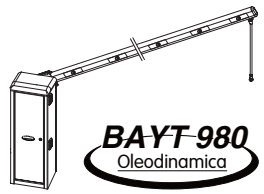
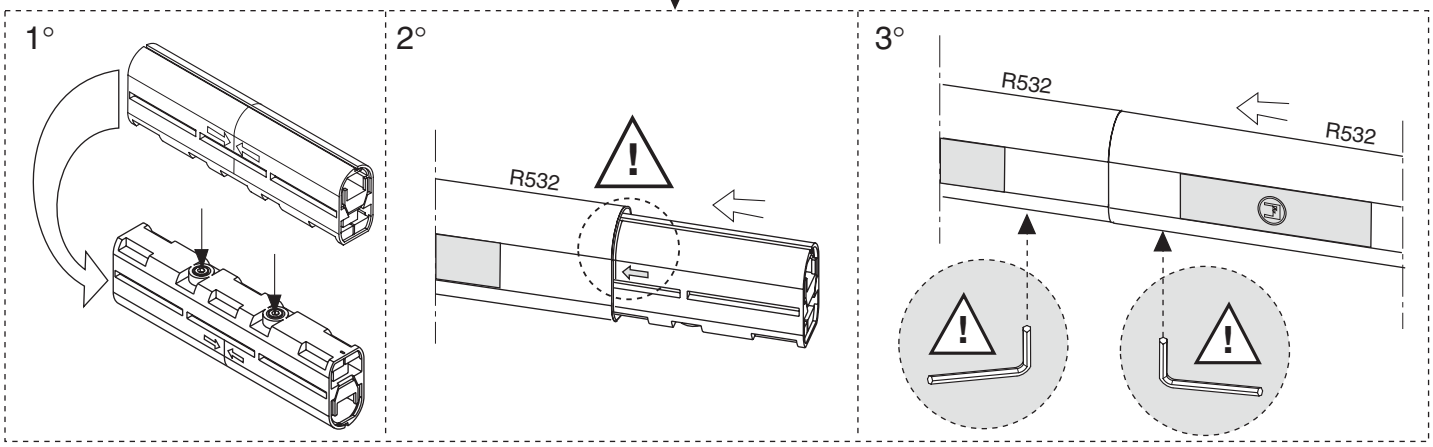
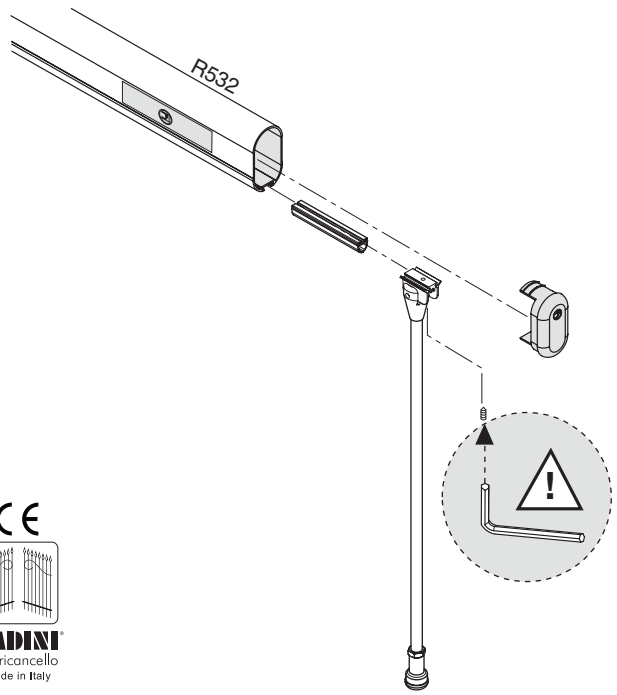
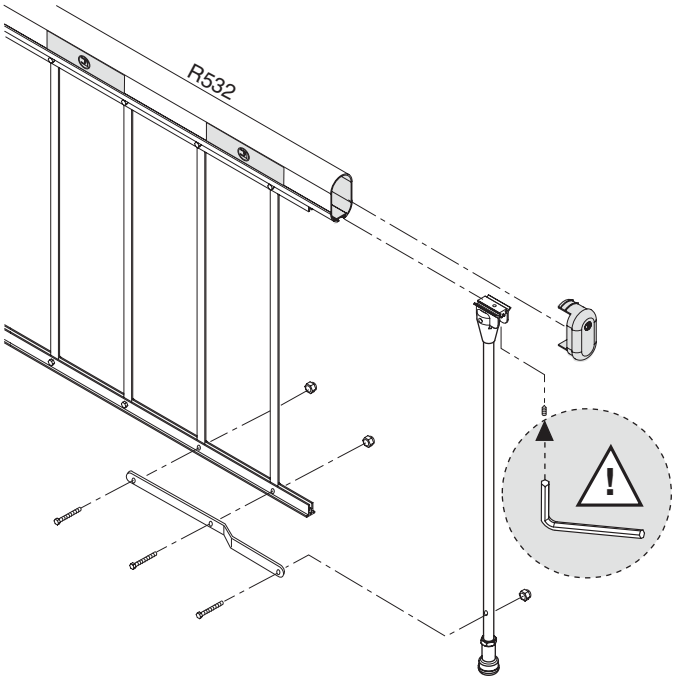
e-mail: info@fadini.net - www.fadini.net

FADINI the gate opener
Made in Italy









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l'apricancello
Made in Italy

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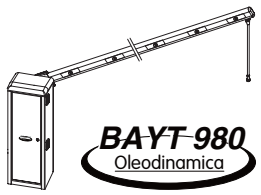
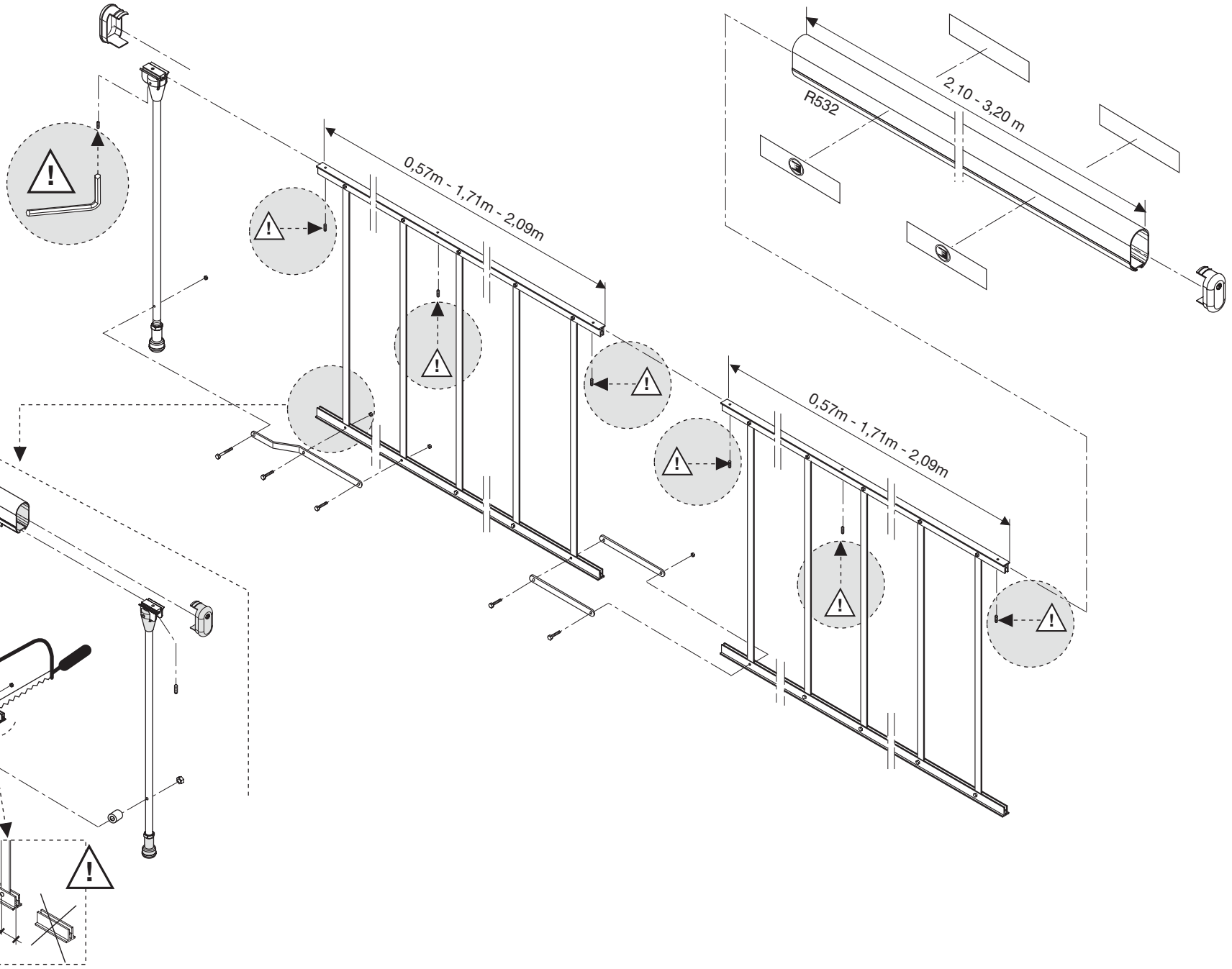


BAYT 980
Oleodinamica



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