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**ELECTROMECHANICAL ROAD BARRIERS  
FOR 2,5 MT, 4 MT, 5 MT, 6 MT  
ENTRANCES  
24 Vcc INTENSIVE USE  
230 Vac RESIDENTIAL USE**

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**BARRIERA**

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**CE**

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**Installer manual**

rev. 3 03/12

**READ CAREFULLY BEFORE PROCEEDING  
WITH INSTALLATION  
KEEP THIS MANUAL FOR FUTURE USE**

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# BARRIERA

Safety  
standard  
specifications

## WARNING



Electric shock!

## WARNING



Keep safety distance!

## WARNING



Moving  
gears!

## WARNING



Do not install  
motors in areas  
saturated with  
explosives mixtures!

Electromechanical road barriers for passages from 2,5 mt up to 6 mt. with low voltage electric motors for intensive use and extensible aluminium round arm. The cabinet treated with electrophoresis and painted in epoxy powder can be used in any climatic condition. Available with mobile foot and articulated arm.

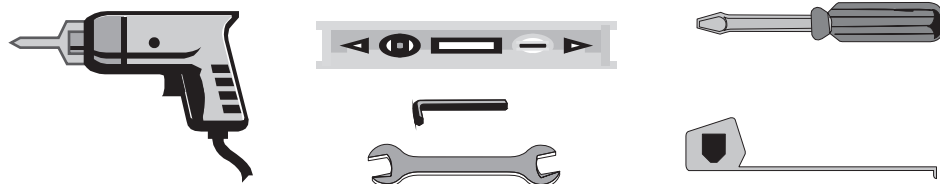
## Technical features

	24 Vcc	230Vac
Power supply	230Volt 50/60Hz	230Volt 50/60Hz
Motor voltage	24 Vcc	230Volt 50/60Hz
Motor power	90 W	300 W
Absorbed power	3,7 A	1,3 A
Motor rpm	1800 rpm	1400 rpm
Opening time BRL 2.5, 4, 5-6 mt slow	8 seconds	9 seconds
Opening time BRL 4 mt fast	7 seconds	-
Opening time BRL 2,5 mt fast	4 seconds	-
Duty cycle	80%	50%
Backup batteries	2 x 12 Vcc 5,2 Ah	-
Cycles with batteries	50 minimum	-
IP protection class	IP 44	IP 44
Operating temp.	-20° / +50° C	-20° / +50° C
Measures (with arm installed)	h100 x 30 x 35 cm	h100 x 30 x 35 cm
Weight	50 Kg	50 Kg

## Precautions required to install the motoreducer

Before installing the motor always read all the manual. The manual not only explain how to install the motor in the correct way but explain also which safety standard the gate must respect.

Tools needed  
for the  
installation  
of the motor



## ATTENTION:

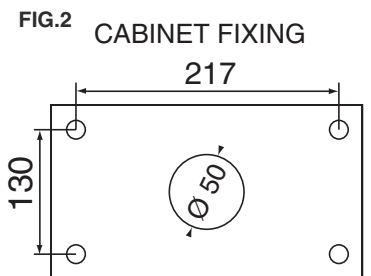
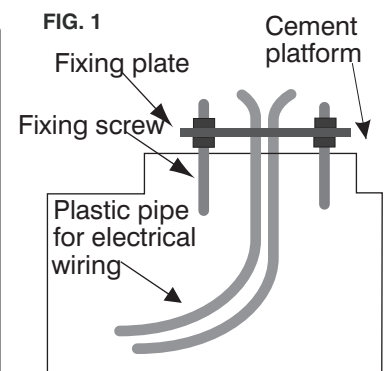
BAME s.r.l. is liable only for the individual articles produced and sold by BAME. The gate with the motor it's considered a machine and must respect the machinery directives, the installer must verify the safety of the gate with the motor and is liable for any damage due to a poor installation. BAME is not liable for any damage depending on modifications to any particular: electrical, electronic or mechanical done by other persons without prior consent by BAME s.r.l.. BAME is not liable for any damage depending on accessories, electronic control boards and photocells without BAME trademark or for the use of these parts without prior consent by BAME s.r.l..



**BEFORE PROCEEDING WITH INSTALLATION  
MAKE SURE THAT THE OPERATING FIELD  
OF THE BARRIER IS FREE FROM OBSTACLES  
AND ELECTRIC CABLES.**

## Assembling procedure

- 1) Prepare a cement platform perfectly straight and level to fix the body. On the center of this platform place the plastic pipes for the electrical wiring and the fixing plate .
- 2) Use suitable screws to fix the plate on the platform.
- 3) Fix the body on the fixing plate.
- 4) Install the arm in the arm support (see pag. 9/10).
- 5) Unlock the motoreducer (pag. 5) and set the spring using the regulation screw placed below the spring. Check that the arm movement is smooth and uniform. (see pag. 11 )
- 6) Lock the motoreducer (pag 5), and proceed with the electrical . wiring (see attached manual).
- 7) Verify that the arm stops in horizontal position (closing) and vertical position (opening).  
If this position is to be adjusted, check the limitswitch magnets and the rubber vibration dumpers (see pag.11).



Hole diameter 15 mm  
Screws diameter 12 mm  
Are advise to be used

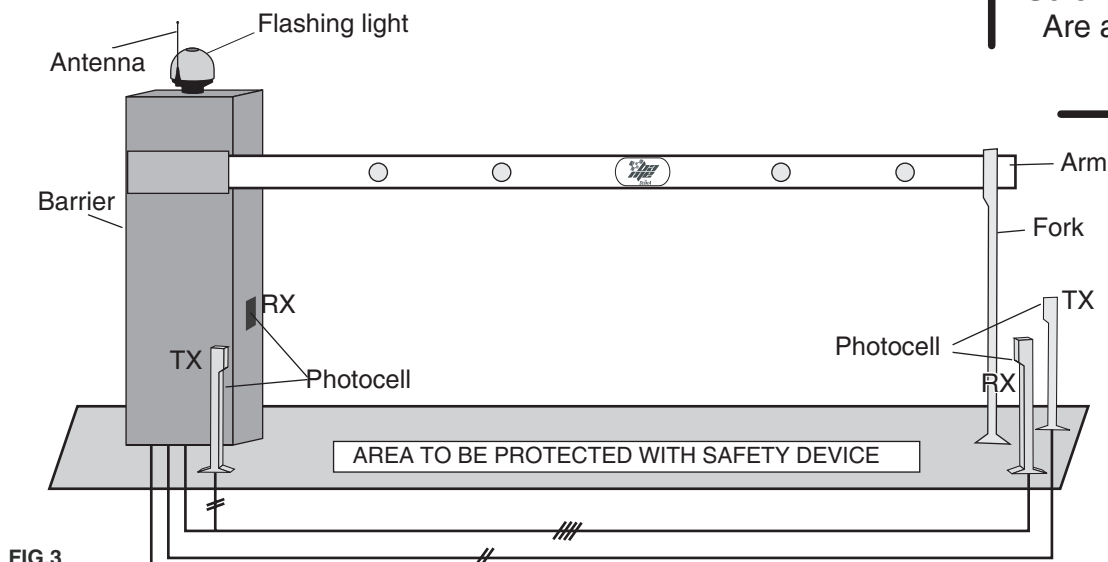
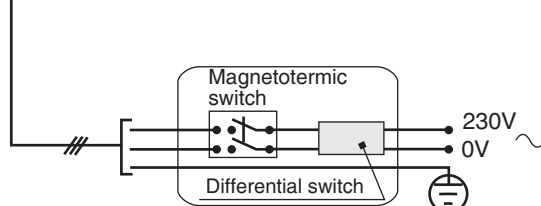


FIG. 3



**DO NOT REGULATE  
THE BARRIER WITH  
THE MOTOR IN  
FUNCTION!!**

## Operations to transform a right barrier into a left barrier

1. Disconnect the power supply of the barrier
2. Unlock the motor
3. Place the barrier in the opening position
4. Lock the motor
5. Remove the arm if installed  
(see ARM REMOVAL pag.10)
6. Unscrew completely the regulation nut of the spring (PART: F)
7. Remove the articulated joint (PART:D) of the balancing lever (PART:B) and place it on the true in the opposite side
8. Insert the regulation screw in the left hole and screw the regulation nut of the spring
9. Tighten the screw on the balancing lever
10. Check the proper balancing of the arm, the regulation of the limitswitches and the anti-vibration rubber dumper ( see pag.11)

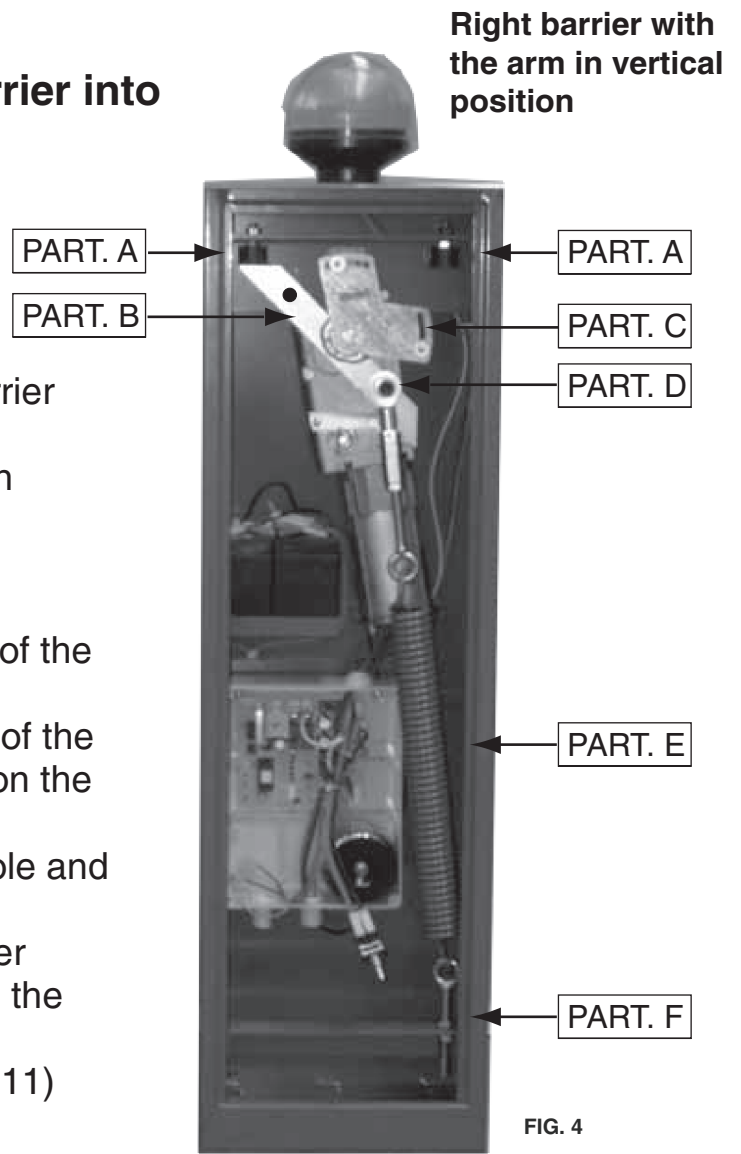
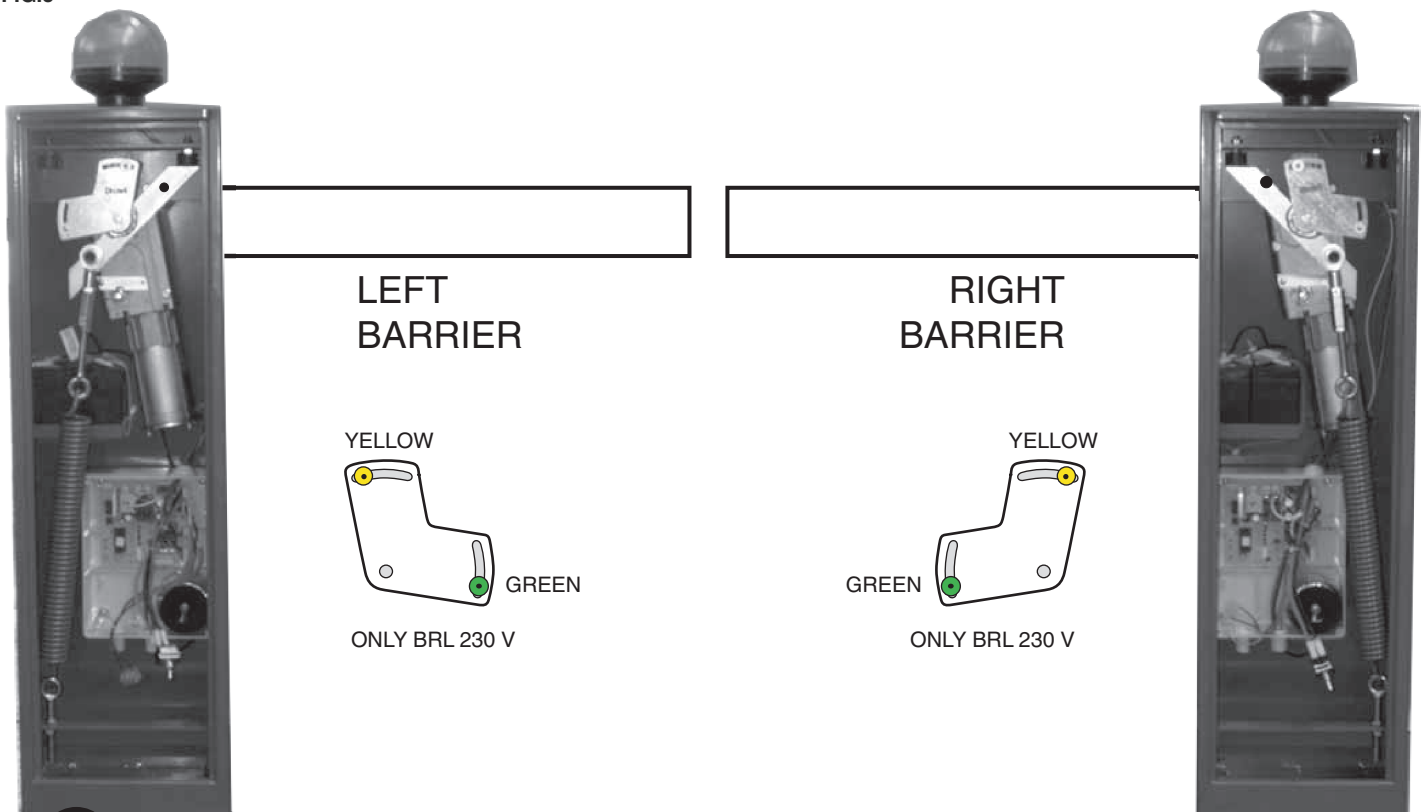


FIG.5



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## Emergency unlocking system:



**WARNING: DO NOT UNLOCK THE BARRIER WITHOUT THE ARM. THERE IS A MORTAL DANGER IF THE BARRIER IS UNLOCKED WITHOUT THE ARM.**

1. Open the protection panel using the key in the kit (fig. 6)
2. On the motor is present an unlocking knob (fig. 7)
3. To unlock the barrier turn the knob clockwise (fig. 7)
4. To lock the barrier turn the knob anticlockwise
5. Replace the protection panel and lock it with the key



FIG. 6

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**ATTENTION: THIS SHEET MUST BE CONSIGNED TO THE CLIENT**

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**ATTENTION: THE CUSTOMER MUST KEEP THIS SHEET TOGETHER WITH THE UNLOCKING KEY IN A SAFE PLACE. THE PLACE WHERE THE KEY IS STORED MUST BE ACCESSIBLE ALSO IN CASE OF POWER FAILURE**

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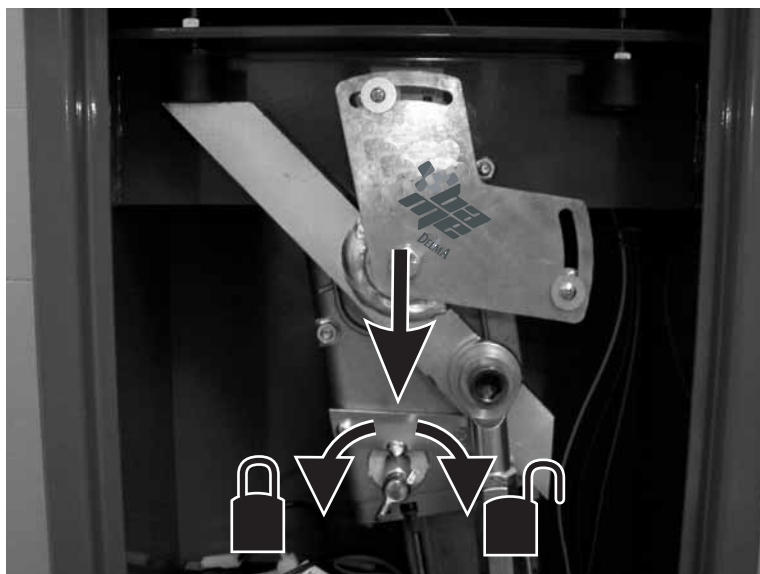


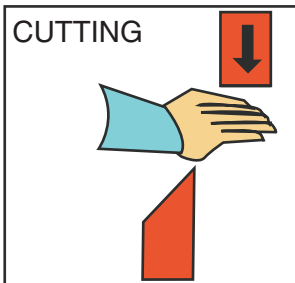
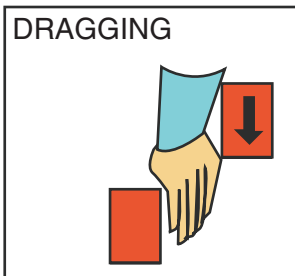
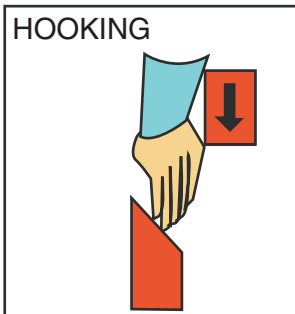
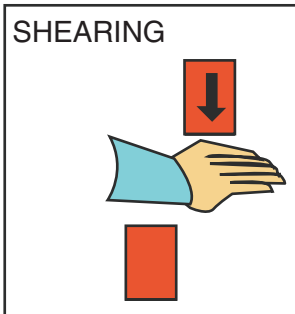
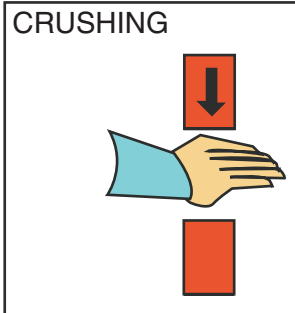
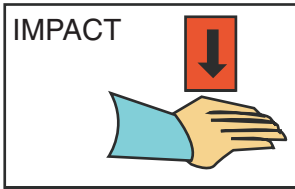
FIG. 7

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**ATTENTION: INFORM ALSO OTHER USERS OF THE AUTOMATION ABOUT THE PLACE WHERE THE KEY AND THIS SHEET ARE STORED.**

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# Safety checks



### Checks:

- The ruggedness and the fastening of the structure is adequate.
- The swing can not fall in the ground.
- The threshold of the gate it's modeled not to create hindrance.
- Limit switch are installed and verified.
- The moving parts are equipped with adequate protections installed in compliance with the safety standards.
- The torque regulation can be changed only by specialized personnel, operating on the control board in compliance with the instructions from the manufacturer.
- The gate with the motor is supplied with an emergency release system.
- The client have been supplied with information about the emergency release system.

### Possible risks:

impact	cutting	lifting	shearing
dragging		hooking	crushing

Mark for each risk the solution adopted.

(Possible solutions : 1-only manual operations, 2-sensitive edges, 3-photocells, 4-swing stoppers, 5-torque limiter, 6-surface modelling, 7-footboards, 8-radar, 9-acoustic signal, 10-visual signal, 11-markings, 12-isolation, 13-protection net, 14-....., 15-.....)

### Electrical risks:

- CE markings are present in compliance with the directive BT(73/23/CEE).
- All electrical connections are made in compliance with standard specifications, also according to the manufacturer manual.
- The remote controls are compliant with the directive R&TTE(99/5/CE).
- Components are marked CE, according to directive EMC(89/336/CEE).

### Safety and reliability of the motor and control devices:

- Controls are verified with the movement of the gate, according with the manufacturer manual.
- All the control device are installed in an accesible position and they are easily visible.
- The motor is compliant with the standard specification EN12453.
- All the presence and motion sensor are working according with the standard specification EN12445.

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Declaration of conformity  
(must be filled by the installer)

**DECLARATION OF CONFORMITY “A”**

The undersigned

Name: .....

Surname:.....

responsible of the installation of the system declare that the product:

Gate type: .....

Address: .....

.....

satisfies all the technical regulations applicable to the product within the scope of Council Directives 73/23/EEC, 89/336/EEC, 98/37/EEC and subsequent modifications.

Furthermore declare that the following standard specifications have been applied:

- EN12453/EN12445 Safety for motorised doors and gates, industrial, commercial and residential - Requisites and classification - Test methods
- EN12604/EN12605 Mechanical aspects for doors and gates, industrial, commercial and residential – Requisites and classification – Test methods
- CEI 64/8 electrical plant with nominal tension not over 1000 VAC and 1500 VDC

Notes: .....

.....

.....

Place:.....

.....

Date: .....

Signature:.....

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## Declaration of conformity

# DECLARATION OF CONFORMITY “B”

*BAME srl*  
*Via Leonardo da Vinci, 23*  
*46020, San Giacomo Segnate (MN)*  
*Italia*

declare that the product

motoreducer for sliding gates, see the instruction manual for compatible gates

## **BARRIERA**

satisfies all the technical regulations applicable to the product within the scope of Council Directives:

**MACHINERY DIRECTIVE 98/37/CEE AND SUBSEQUENT MODIFICATIONS.**

**DIRECTIVE EMC 89/336/CEE.**

**DIRECTIVE BT 73/23/CEE AND 93/68/CEE.**

**IS FORBIDDEN TO PUT INTO SERVICE THE DEVICE OF THIS DECLARATION BEFORE THE PRODUCT OF THE DECLARATION “A” HAS BEEN DECLARED IN COMPLIANCE WITH THE SPECIFICATIONS STANDARD.**

*San Giacomo Segnate, 01/01/2010*

*Baraldini Silvano*  
*BAME srl*





**NEVER ENTER THE OPERATING FIELD OF THE ARM DURING INSTALLATION OR NORMAL USE.**

**WARNING:**  
IF USING A DIFFERENT ARM FROM THE ONE SUPPLIED BY BAME, PLEASE CONSIDER THE WEIGHT SCHEME AS SHOWN IN THE FOLLOWING PAGE. IT IS ADVISED TO USE ALWAYS BAME ORIGINAL PROFILES.



## Arm fixing

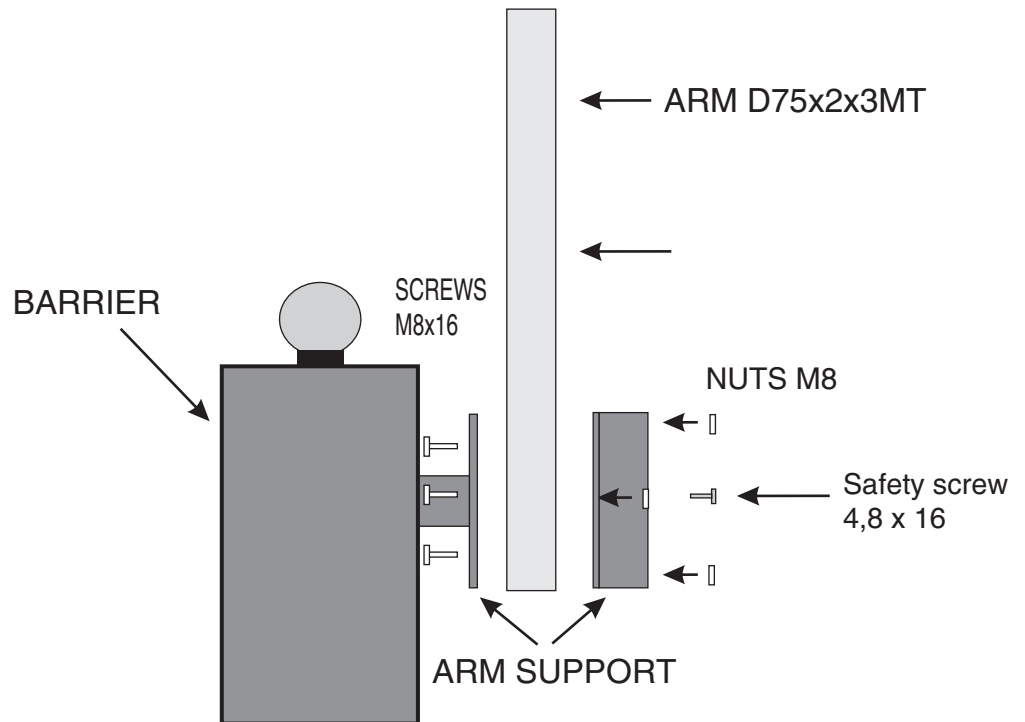


FIG.8

1. Fix the first element of the arm between the two arm supports tightening the M8x16 screws and the M8 self-locking nuts
2. Unlock the motor (page 5)
3. Put down the arm carefully
4. Lock the motor
5. Release the arm and make sure that the arm does not go up by itself
6. Add other pieces of the arm as shown in the following page
7. Unlock the motor and check if the arm movement is uniform
8. Adjust the spring tension (pag.11)

## Arm removal

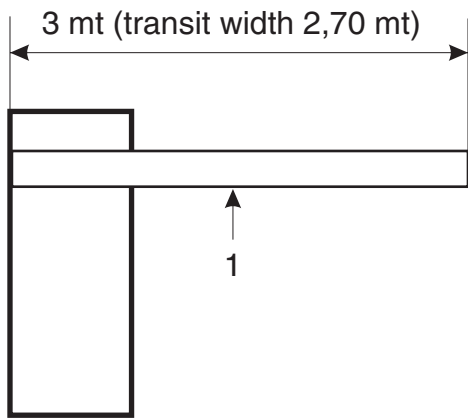
1. Move the arm in the opening position and lock the motor
2. Loosen the screws of the arm support and let the arm slide down on the floor
3. Remove the arm support keeping the arm in vertical position
4. Put the arm on the floor carefully

## DANGER OF FATAL INJURIES

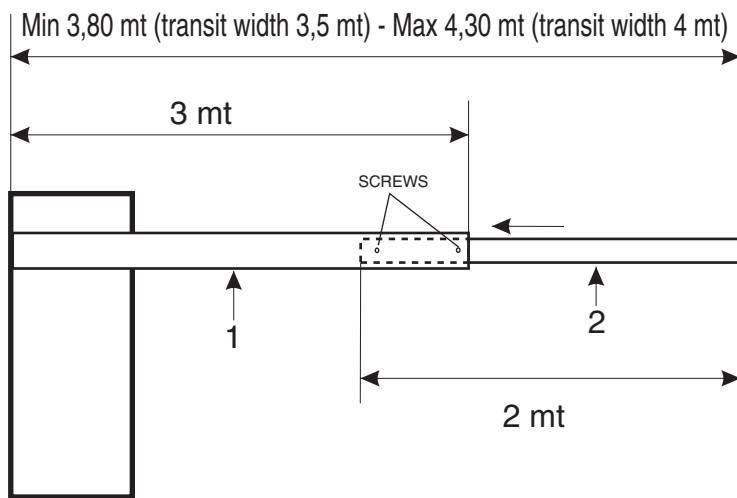
**WARNING: NEVER REMOVE THE ARM IN HORIZONTAL POSITION WITH THE SPRING UNDER TENSION**

## Assembling round aluminium arm

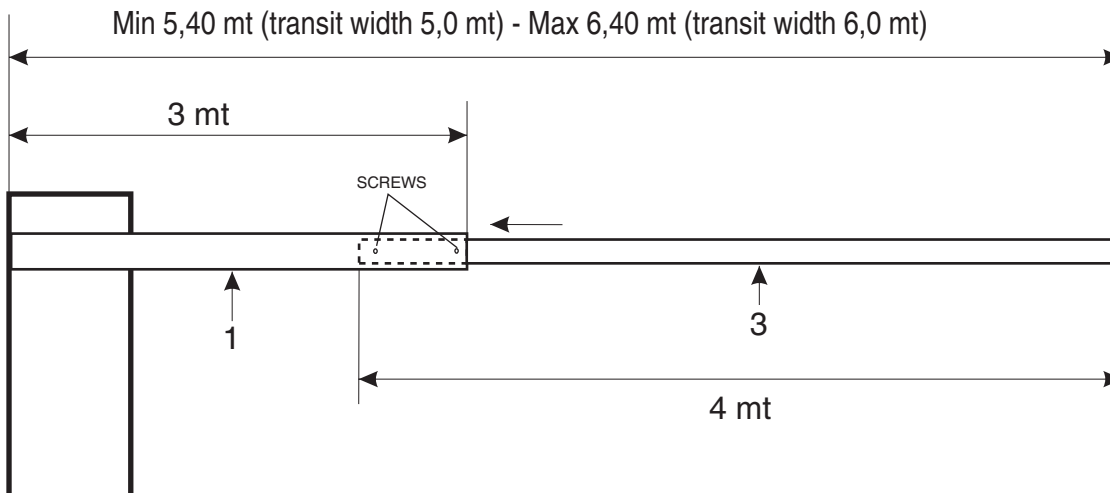
### 2,5 mt Single round arm



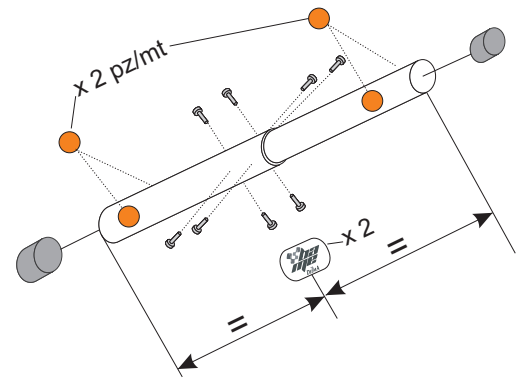
### 4 mt Round telescopic arm



### 6 mt Round telescopic arm



## Arm stickers and cap



Fix the two parts of the arm with a 4,8x16 self-threading screws

FIG.9

## Arm dimensions

### Diameters:

- 1) 75 x 2 x 3000 mm
- 2) 70 x 2 x 2000 mm
- 3) 70 x 2 x 4000 mm

### Weights:

- 2,5 mt = 3,8 Kg  
 4 mt = 6,2 Kg  
 6 mt = 8,7 Kg

## Adjusting limit switches and rubber stoppers

Adjust the rubber stoppers and the switches so that the arm is horizontal when in closed position and vertical when in open position.

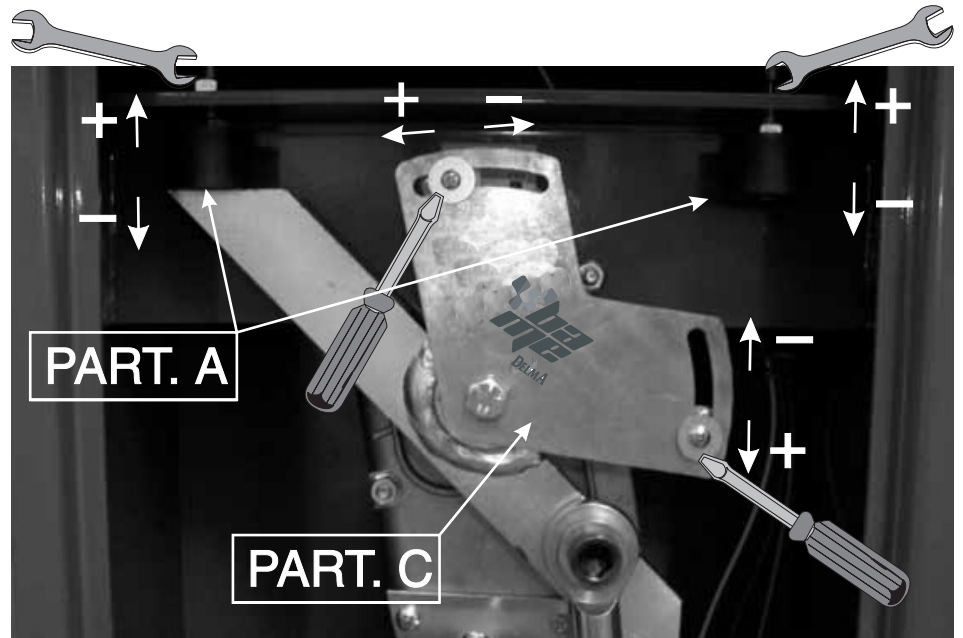
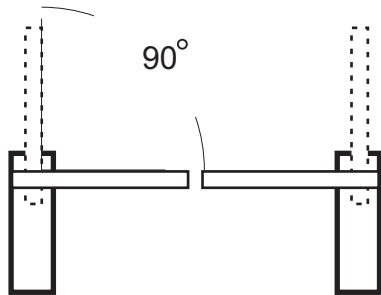


FIG.10

## Adjusting the spring tension:

After having installed the arm on the barrier is mandatory to adjust the spring tension :

- 1.Unlock the reducer
- 2.Set the arm in the opening position
- 3.Lock the reducer
- 4.Turning the tensioning nut, tension the spring until obtaining the best setting

Verification of the best setting :

- 1.Unlock the reducer
- 2.Carefully bring the arm in the closed position
- 3.Release the arm
- 4.If the spring is tensioned correctly the arm should open and stop at about 30° degree



The spring should be tensioned during the entire travel of the arm without any play



The spring tensioning should be checked after 15 days from the installation

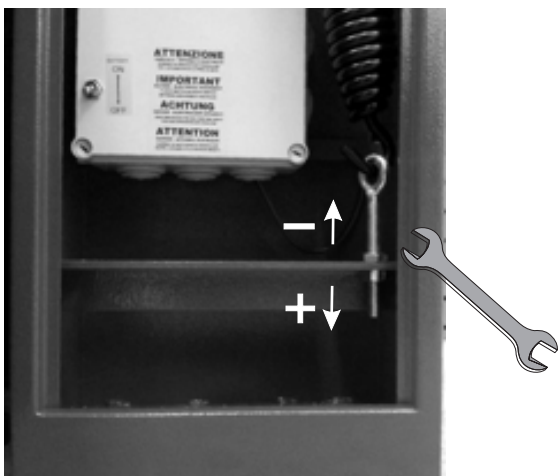
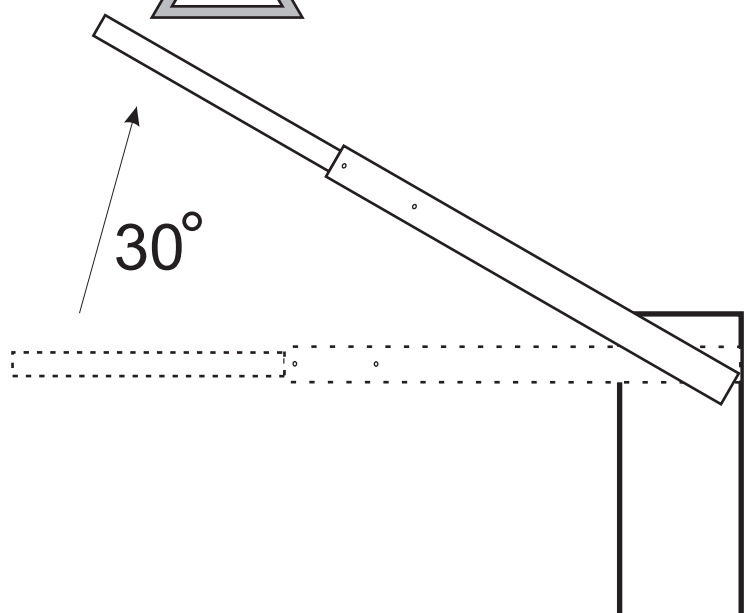


FIG.11



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## WARNINGS:

**BAME s.r.l.** , as manufacturer, can not be held responsible for damages due to wrong or missing connections or due to an improper setting.

The safety devices should be always installed and kept in full working order.

Once terminated the system setting, you should place back the container on its position, fastening tight its screws.

**BAME s.r.l.** , as manufacturer, can not be held responsible for damages due to improper use of the door/gate.

It is forbidden to replace any electric, electronic or mechanic part with not original spare parts.

**BAME s.r.l.** , has the right to modify or change the electronic boards and manuals, without prior notice.

Always regulate accurately the torque of the motors. An incorrect setting of the torque may cause damage to people, animals or objects.



### **BAME s.r.l.**

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## WARRANTY:

Devices and accessories are guaranteed for a period of 24 months after production, whose date is printed on each item. The company will replace or repair its devices, provided that they are returned to our factory with the warranty label in good conditions. In case of replacement of the returned items, these will remain property of the company. The warranty does not include damages due to any incorrect use, such as: non fulfilment of the instruction detailed for each device, maintenance and servicing carried out without the previous written consent of our company.

Moreover, warranty does not cover any damage due to wrong tension supply and any other reason for which the manufacturer cannot be made responsible. Any device returned must be delivered to our company with carriage paid and will be sent back with freight collect.

Warranty validity ceases if customer's payments are not fulfilled.

Each device manufactured by our company meets the european safety standards. Our company declines all responsibility for the non-observance of the safety rules by the installers.

In order to reduce the time spent for servicing the returned items, all faulty materials which have been sent back to us must be accompanied by the installer description of the item fault.