

## TRIPOD TURNSTILES

FA00613-EN



INSTALLATION MANUAL

## **TWISTER**

**PST001 - PST002 - PST003 - PST004**

**EN** English



**WARNING!**  
**important safety instructions for people:**  
**READ CAREFULLY!**



**PREMISE**

• THIS PRODUCT SHOULD ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS EXPLICITLY DESIGNED. ANY OTHER USE IS DANGEROUS. CAME S.p.A. IS NOT LIABLE FOR ANY DAMAGE CAUSED BY IMPROPER, WRONGFUL AND UNREASONABLE USE • THE SAFETY OF THIS PRODUCT AND ITS PROPER FITTING DEPENDS, THEREFORE, ON RESPECTING ITS TECHNICAL CHARACTERISTICS AND PROPER FITTING, TO BE DONE IN STATE-OF-THE-ART FASHION, AND UNDER SAFE CONDITIONS AS EXPRESSLY EXPLAINED IN THE LITERATURE THAT COMES WITH THE PRODUCT • KEEP THESE WARNINGS TOGETHER WITH THE INSTALLATION AND OPERATION MANUALS THAT COME WITH THE OPERATOR.

**BEFORE INSTALLING**

*(CHECKING WHAT'S THERE: IF SOMETHING IS MISSING,  
DO NOT CONTINUE UNTIL YOU HAVE COMPLIED  
WITH ALL SAFETY PROVISIONS)*

• FITTING AND TESTING MUST BE ONLY PERFORMED BY QUALIFIED TECHNICIANS • LAYING THE CABLES, INSTALLATION AND TESTING MUST FOLLOW STATE-OF-THE-ART PROCEDURES AS DICTATED BY REGULATIONS • BEFORE BEGINNING ANY OPERATION IT IS MANDATORY TO CAREFULLY READ ALL INSTRUCTIONS; IMPROPER INSTALLATION MAY RESULT IN SERIOUS HARM TO PEOPLE AND THINGS. • MAKE SURE THE OPERATOR IS IN GOOD MECHANICAL STATE, BALANCED AND ALIGNED, AND THAT IT OPENS AND CLOSES PROPERLY. ALSO, IF NEEDED, FIT SUITABLE PROTECTIONS OR USE PROPER SAFETY SENSORS • MAKE SURE THAT THE OPENING TURNSTILE CANNOT RESULT IN ANY HAZARDS • DO NOT INSTALL THE OPERATOR ONTO SURFACES THAT COULD YIELD AND BEND. IF NECESSARY, ADD SUITABLE REINFORCEMENTS TO THE ANCHORING POINTS • ONLY INSTALL ON A LEVEL SURFACE • MAKE SURE ANY SPRINKLER SYSTEMS CANNOT WET THE OPERATOR FROM THE GROUND UP.

**INSTALLING**

• SUITABLY SECTION OFF AND DEMARCATÉ THE ENTIRE INSTALLATION SITE TO PREVENT UNAUTHORIZED PERSONS FROM ENTERING THE AREA, ESPECIALLY MINORS AND CHILDREN • BE CAREFUL WHEN HANDLING OPERATORS THAT WEIGH OVER 25 KG. IF NEED BE, USE PROPER SAFETY HOISTING EQUIPMENT • THE CE-MARKED SAFETY DEVICES, MUST BE FITTED IN COMPLIANCE WITH THE REGULATIONS IN EFFECT AND ACCORDING TO STATE-OF-THE-ART CRITERIA, TAKING INTO ACCOUNT THE ENVIRONMENT, THE TYPE OF REQUIRED SERVICE AND OF THE WORKING FORCES APPLIED TO MOVING TURNSTILES. ANY CRUSHING SHEARING OR CONVEYING POINTS MUST BE SUITABLY PROTECTED • ANY RESIDUAL RISKS MUST BE POINTED OUT TO END USERS AND HIGHLIGHTED WITH PICTOGRAMS AS PROVIDED BY THE LAW • ALL OPENING COMMANDS (THAT IS, BUTTONS, KEY SWITCHES, MAGNETIC READERS, AND SO ON) MUST BE INSTALLED AT LEAST 1.85 M FROM THE PERIMETER OF THE TURNSTILE'S WORKING AREA, OR WHERE THEY CANNOT BE REACHED FROM OUTSIDE THE TURNSTILE. ALSO, ANY DIRECT COMMANDS (BUTTONS, TOUCH PANELS, AND SO ON) MUST BE INSTALLED AT LEAST 1.5 M FROM THE GROUND AND MUST NOT BE REACHABLE BY UNAUTHORIZED PERSONS • THE TURNSTILE MUST CLEARLY DISPLAY ITS OWN IDENTIFICATION DATA • BEFORE CONNECTING THE TURNSTILE TO THE POWER SUPPLY MAKE SURE THAT THE IDENTIFICATION DATA MATCH THE NETWORK DATA • THE TURNSTILE MUST BE CONNECTED TO AN EFFICIENT, STATE-OF-THE-ART GROUNDING SYSTEM • THE MANUFACTURER DECLINES ANY LIABILITY FOR USING NON-ORIGINAL PRODUCTS; WHICH WOULD RESULT IN WARRANTY LOSS • BEFORE DELIVERING TO THE USERS, MAKE SURE THE SYSTEM IS EN 12453 AND EN 12445 STANDARD COMPLIANT, AND ALSO MAKE SURE THE SYSTEM HAS BEEN PROPERLY ADJUSTED AND THAT ANY SAFETY, PROTECTION AND MANUAL RELEASE DEVICES ARE WORKING PROPERLY • APPLY WARNING SIGNS WHERE NECESSARY AND IN A VISIBLE PLACE.

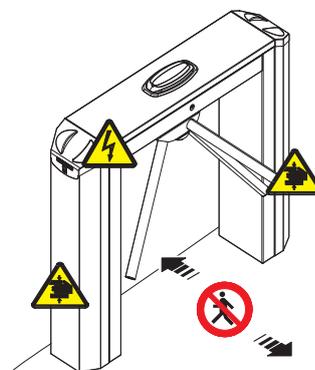
**SPECIAL INSTRUCTIONS  
AND RECOMMENDATIONS FOR USERS**

• KEEP TURNSTILE OPERATION AREAS CLEAN AND FREE OF ANY OBSTRUCTIONS. MAKE SURE THE PHOTOCELL'S OPERATING FIELD IS CLEAR OF ANY OBSTRUCTIONS • DO NOT ALLOW CHILDREN TO PLAY WITH FIXED COMMANDS, OR TO LOITER IN THE TURNSTILE'S MANEUVERING AREA. KEEP ANY REMOTE CONTROL TRANSMITTERS OR ANY OTHER COMMAND DEVICE AWAY FROM CHILDREN, TO PREVENT THE OPERATOR FROM BEING ACCIDENTALLY ACTIVATED • THE APPARATUS MAY BE USED BY CHILDREN OF EIGHT YEARS AND ABOVE AND BY PHYSICALLY, MENTALLY AND SENSORY-CHALLENGED PEOPLE, OR EVEN ONES WITHOUT ANY EXPERIENCE, PROVIDED THIS HAPPENS UNDER CLOSE SUPERVISION OR ONCE THEY HAVE BEEN PROPERLY INSTRUCTED TO USE THE APPARATUS SAFELY AND TO THE POTENTIAL HAZARDS INVOLVED. CLEANING AND MAINTENANCE BY USERS MUST NOT BE DONE BY CHILDREN, UNLESS PROPERLY SUPERVISED. • FREQUENTLY CHECK THE SYSTEM FOR ANY MALFUNCTIONS OR SIGNS OF WEAR AND TEAR OR DAMAGE TO THE MOVING STRUCTURES, TO THE COMPONENT

PARTS, ALL ANCHORING POINTS, INCLUDING CABLES AND ANY ACCESSIBLE CONNECTIONS. KEEP ANY HINGES, MOVING JOINTS AND FRICTION POINTS PROPERLY LUBRICATED • PERFORM FUNCTIONAL CHECKS ON THE PHOTOCELLS AND SENSITIVE SAFETY EDGES, EVERY SIX MONTHS. CONSTANTLY CLEAN THE PHOTOCELLS' GLASS COVERS USING A SLIGHTLY WATER-MOISTENED CLOTH; DO NOT USE SOLVENTS OR CHEMICALS THAT COULD DAMAGE THE DEVICES • IF REPAIRS OR MODIFICATIONS ARE REQUIRED TO THE SYSTEM, CUT OFF THE MAIN POWER SUPPLY AND DO NOT USE IT UNTIL SAFETY CONDITIONS HAVE BEEN RESTORED • CUT OFF THE POWER SUPPLY BEFORE PERFORMING ANY MANUAL OPENINGS. IF THE POWER SUPPLY CABLE IS DAMAGED, IT MUST BE REPLACED BY THE MANUFACTURER OR AUTHORIZED TECHNICAL ASSISTANCE SERVICE, OR IN ANY CASE, BY SIMILARLY QUALIFIED PERSONS, TO PREVENT ANY RISK • IT IS FORBIDDEN FOR USERS TO PERFORM ANY OPERATIONS THAT ARE NOT EXPRESSLY REQUIRED OF THEM. FOR ANY REPAIRS, MODIFICATIONS AND ADJUSTMENTS AND FOR EXTRA-ORDINARY MAINTENANCE, CALL TECHNICAL ASSISTANCE • LOG THE JOBS AND CHECKS INTO THE PERIODIC MAINTENANCE LOG.

**ADDITIONAL INSTRUCTIONS AND RECOMMENDATIONS  
FOR EVERYONE**

• KEEP AWAY FROM AND DO NOT LOITER NEAR THE BARRIER AND MECHANICAL MOVING PARTS • DO NOT ENTER THE BARRIER'S AREA OF OPERATION WHEN IT IS MOVING • DO NOT COUNTER THE OPERATOR'S MOVEMENT AS THIS COULD RESULT IN DANGEROUS SITUATIONS • ALWAYS PAY SPECIAL ATTENTION TO ANY DANGEROUS POINTS, WHICH HAVE TO BE LABELED WITH SPECIFIC PICTOGRAMS AND/OR BLACK AND YELLOW STRIPES • WHEN USING A SELECTOR SWITCH OR A COMMAND IN MAINTAINED ACTION MODE, KEEP CHECKING THAT THERE ARE NO PERSONS WITHIN THE OPERATING RANGE OF ANY MOVING PARTS, UNTIL THE COMMAND IS RELEASED • THE TURNSTILE MAY MOVE AT ANY TIME AND WITHOUT WARNING • ALWAYS CUT OFF THE MAINS POWER SUPPLY BEFORE PERFORMING ANY MAINTENANCE OR CLEANING.



*DANGER OF HAND CRUSHING*



*DANGER! HIGH VOLTAGE.*



*NO TRANSITING WHILE THE BARRIER IS MOVING*

## KEY

-  This symbol indicates parts to read carefully.
-  This symbol indicates parts about safety.
-  This symbol tells you what to say to the end users.

UNLESS EXPRESSEDLY STATED THE OPERATIONS SHALL BE VALID FOR ALL MODELS OF THE TWISTER SERIES REGARDLESS OF THE DRAWINGS SHOWN IN THIS MANUAL.

## DESCRIPTION

001PST001	Bidirectional electromechanical turnstile in satin finished AISI 304 stainless steel with control board, transponder sensors, LED direction arrows with display, lateral traffic lights and hydraulic damper. Automatic tripod release in the event of a blackout.
001PST002	Bidirectional electromechanical turnstile in satin finished AISI 304 stainless steel with control board, LED direction arrows with display, lateral traffic lights and hydraulic damper. Automatic tripod release in the event of a blackout.
001PST003	Bidirectional electromechanical turnstile in satin finished AISI 304 stainless steel with control board, LED direction arrows with display, lateral traffic lights, protection against climbing over and hydraulic damper. Automatic tripod release in the event of a blackout.
001PST004	Bidirectional electromechanical turnstile in satin finished AISI 304 stainless steel with control board, LED direction arrows with display, lateral traffic lights, arm drop system and hydraulic damper. Automatic tripod release in the event of a blackout.

On all models, the top cover has a lock and is removable. The legs are removable. The head of the tripod is made of aluminum with a polished finish and the arms are in AISI 304 polish finish stainless steel.

The bidirectional electromechanical turnstile is selective, in that it allows the passage in the chosen direction of a person at a time.

The turnstile is operated by a control device that unlocks the tripod. After passing the arms automatically reposition and the tripod locks until a new command is issued.

**Protection against climbing over:** a set of optical and micro sensors detects and reports any attempt to scale the turnstile.

**Arm drop system:** the horizontal arm drops to free the passage during emergencies where there is no line voltage.

## Intended use

The electromechanical turnstiles are used to filter and regulate pedestrian traffic in areas with high intensity of passage such as stadiums, sports centres, subways, public offices.

-  Opening the turnstile only 60° automatically resets it to its initial position.
-  Leaning on the arm before releasing the tripod will prevent the turnstile from opening.

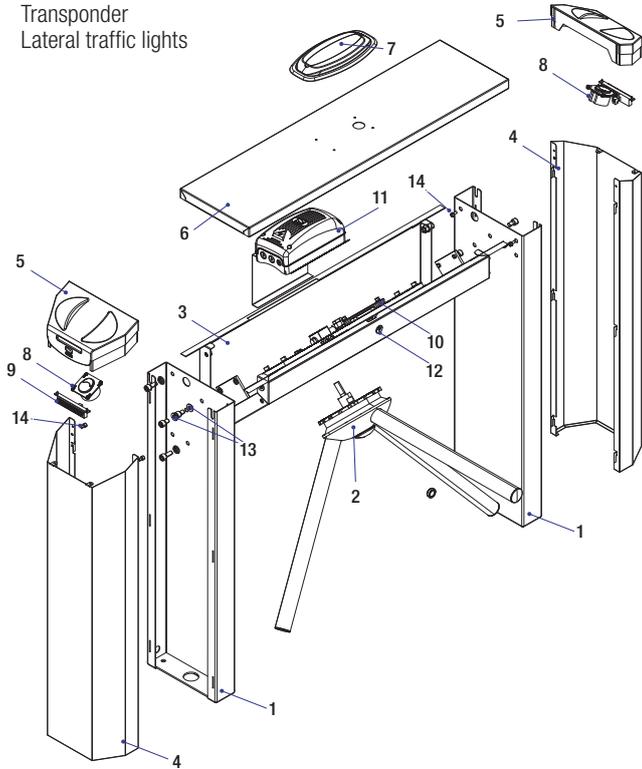
## Technical data

Model	PST001-PST002-PST003-PST004
Protection rating (IP)	44
Power supply (V - 50/60 Hz)	120 - 230 AC
Current draw (mA)	260
Max weight (kg)	76
Insulation class	I
Operating temperature (°C)	-20 ÷ +55

## Description of the components

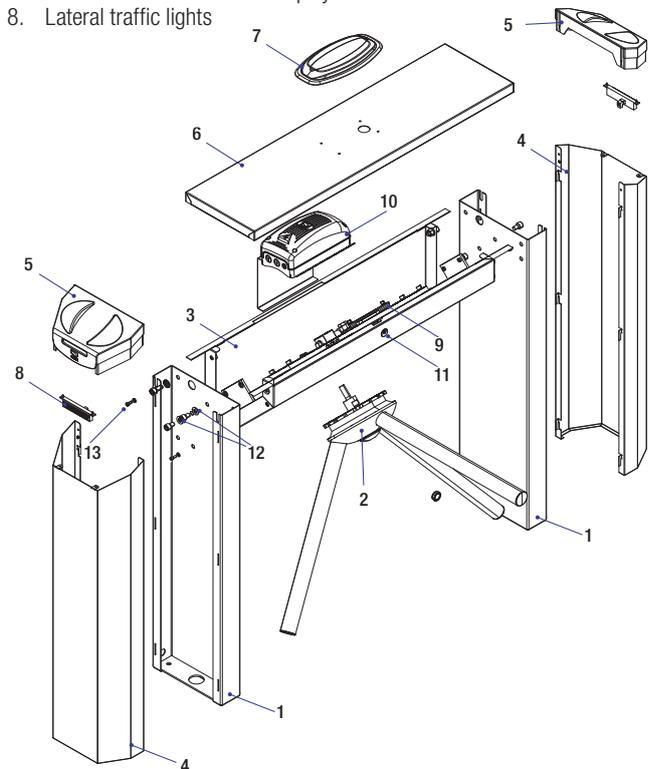
### PST001

- |                                      |                                    |
|--------------------------------------|------------------------------------|
| 1. Legs                              | 10. Mechanism                      |
| 2. Tripod                            | 11. TOR100 control panel           |
| 3. Housing                           | 12. Cover lock                     |
| 4. Casing                            | 13. Legs fixing screws and washers |
| 5. Casing cover                      | 14. Legs fixing screws             |
| 6. Top cover                         |                                    |
| 7. LED direction arrows with display |                                    |
| 8. Transponder                       |                                    |
| 9. Lateral traffic lights            |                                    |



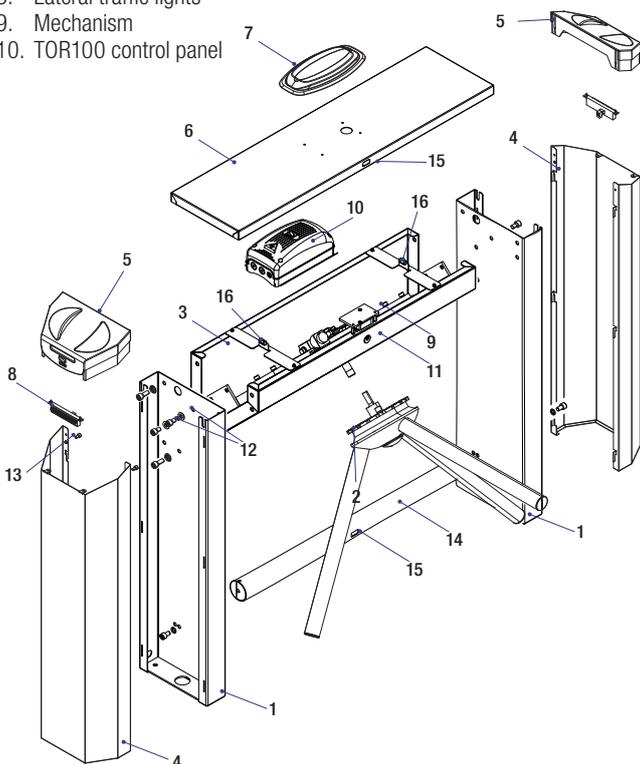
### PST002

- |                                      |                                    |
|--------------------------------------|------------------------------------|
| 1. Legs                              | 9. Mechanism                       |
| 2. Tripod                            | 10. TOR100 control panel           |
| 3. Housing                           | 11. Cover lock                     |
| 4. Casing                            | 12. Legs fixing screws and washers |
| 5. Casing cover                      | 13. Casing fixing screws           |
| 6. Top cover                         |                                    |
| 7. LED direction arrows with display |                                    |
| 8. Lateral traffic lights            |                                    |



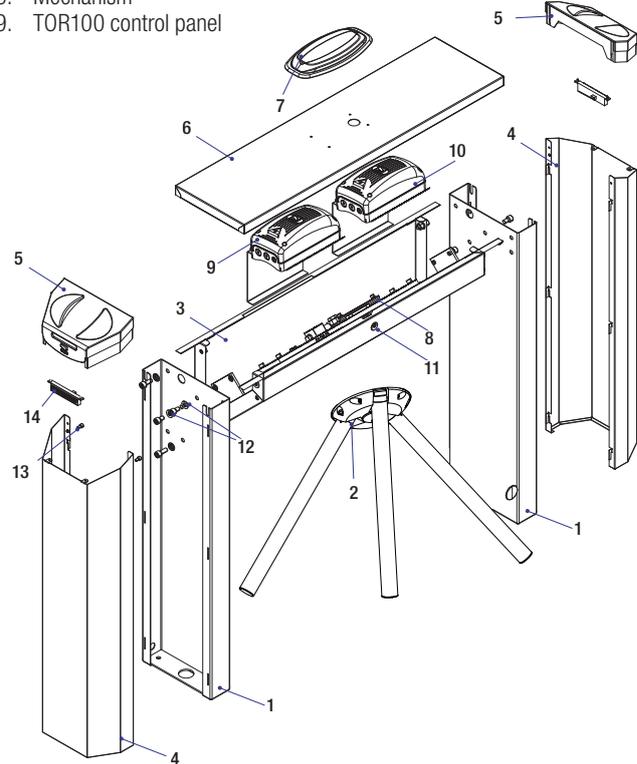
### PST003

- |                                      |                                    |
|--------------------------------------|------------------------------------|
| 1. Legs                              | 11. Cover lock                     |
| 2. Tripod                            | 12. Legs fixing screws and washers |
| 3. Housing                           | 13. Casing fixing screws           |
| 4. Casing                            | 14. Photocell crosspiece mount     |
| 5. Casing cover                      | 15. Anti-intruder photocells       |
| 6. Top cover                         | 16. Climb-over protection sensors  |
| 7. LED direction arrows with display |                                    |
| 8. Lateral traffic lights            |                                    |
| 9. Mechanism                         |                                    |
| 10. TOR100 control panel             |                                    |



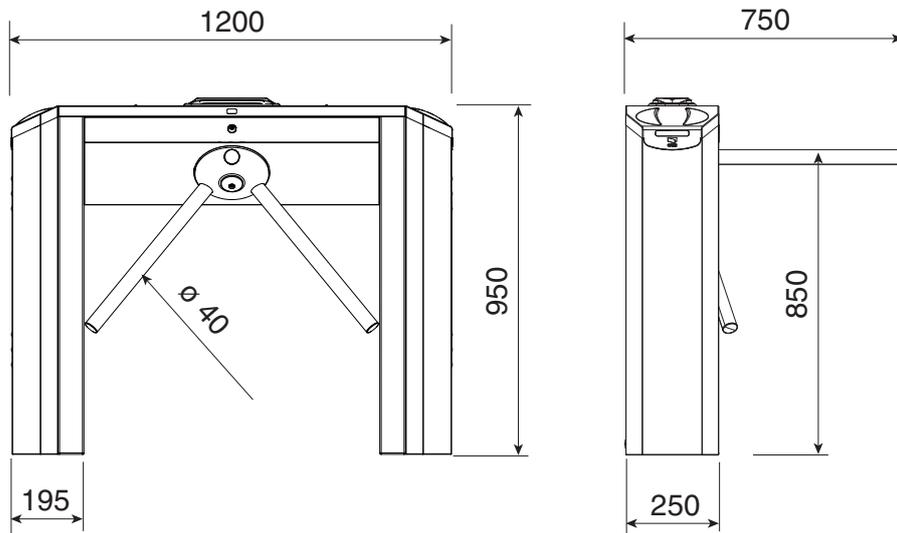
### PST004

- |                                      |                                    |
|--------------------------------------|------------------------------------|
| 1. Legs                              | 10. TOR100B control panel          |
| 2. Tripod                            | 11. Cover lock                     |
| 3. Housing                           | 12. Legs fixing screws and washers |
| 4. Casing                            | 13. Casing fixing screws           |
| 5. Casing cover                      | 14. Lateral traffic lights         |
| 6. Top cover                         |                                    |
| 7. LED direction arrows with display |                                    |
| 8. Mechanism                         |                                    |
| 9. TOR100 control panel              |                                    |



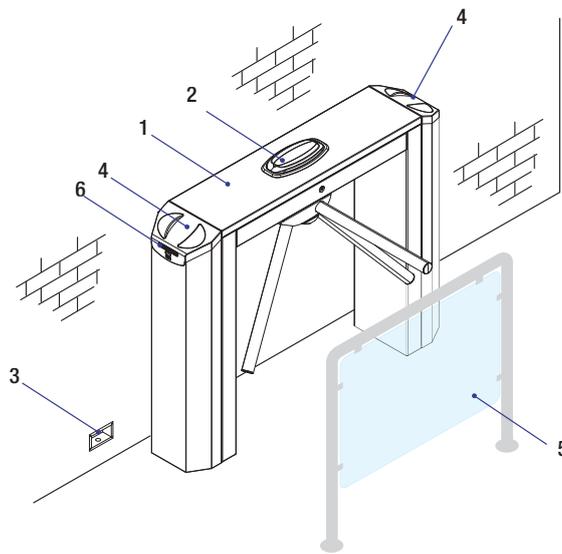
## Dimensions

(MM)



## Example of a system

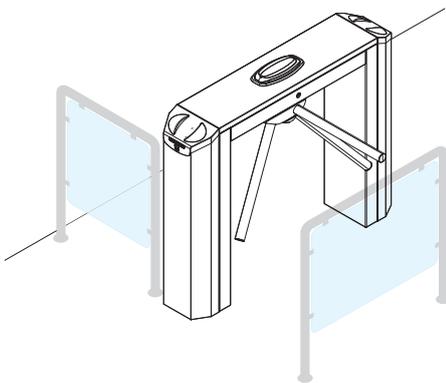
1. Tripod turnstile
2. Direction arrows with display
3. Junction box
4. Transponder sensor
5. Barrier
6. Lateral traffic lights



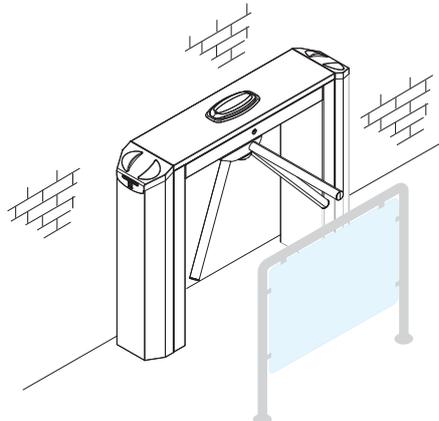
## Examples of use

⚠ A turnstile regulated exit should not be considered an emergency exit! Always provide an exit for emergency situations and for the physically impaired.

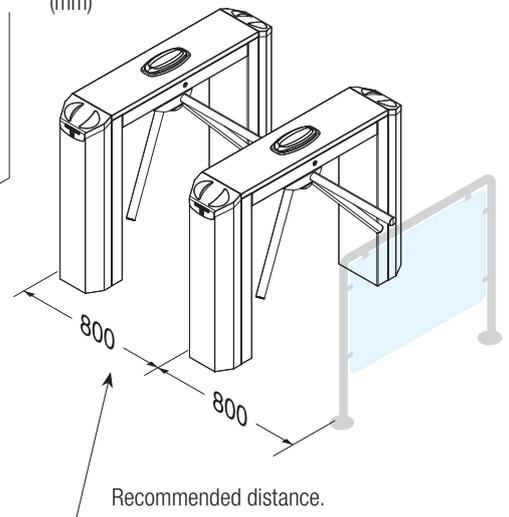
Standard installation



Wall flanking installation



Multiple installation  
(mm)



## GENERAL INSTRUCTIONS FOR INSTALLATION

△ Installation must be carried out by qualified and experienced personnel in compliance with applicable regulations.

### Preliminary checks

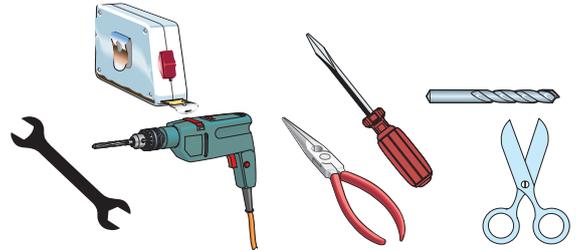
△ The following is necessary before installing the turnstile:

- if necessary provide for the corrugated tubing to route electrical cables;
- provide a suitable omnipolar disconnector, with a maximum of 3 mm between the contacts, to disconnect the power supply;
- prepare suitable piping and ducts for routing the electrical cables, ensuring protection against mechanical damage;
- ⚡ make sure that any connections within the container (made to ensure the continuity of the protection circuit) are fitted with additional insulation compared to the other internal conductor parts.

### Tools and materials

Make sure you have all the tools and materials needed for the installation at hand to work in total safety and compliance with current standards and regulations.

The figure shows some examples of installer's tools.



### Types of cables and minimum thicknesses

Connection	Cable type	Cable length 1 < 10 m	Cable length 10 < 20 m	Cable length 20 < 30 m
230 V control panel power supply	FROR CEI 20-22 IEC EN 50267-2-1	3G x 1.5 mm <sup>2</sup>	3G x 1.5 mm <sup>2</sup>	3G x 1.5 mm <sup>2</sup>
Accessory power supply		2 x 0.5 mm <sup>2</sup>	2 x 0.5 mm <sup>2</sup>	2 x 1 mm <sup>2</sup>
Control and safety devices		2 x 0.5 mm <sup>2</sup>	2 x 0.5 mm <sup>2</sup>	2 x 0.5 mm <sup>2</sup>

📖 If the cables differ in length from what is shown in the table, the cable cross-section is determined according to the actual current draw of the devices connected and according to the provisions of the IEC EN 60204-1 standard.

For connections that require several, sequential loads, the sizes listed in the table must be re-evaluated based on actual power draw and effective distances. When connecting products that are not specified in this manual, please refer to the documentation provided with said products.

## INSTALLATION

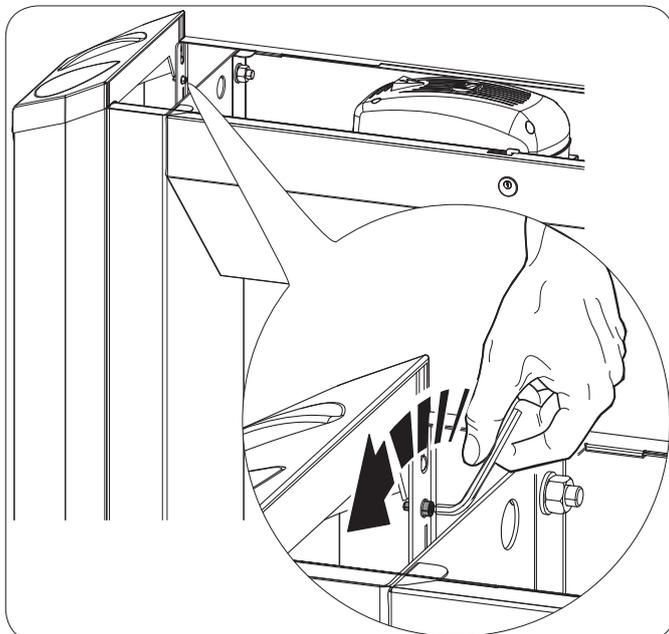
The following illustrations are only examples, given that the space for securing the turnstile and accessories varies depending on the overall dimensions. The installation technician is responsible for choosing the most suitable solution.

△ The turnstile must be mounted by two people. Transport and lift using appropriate lifting equipment.

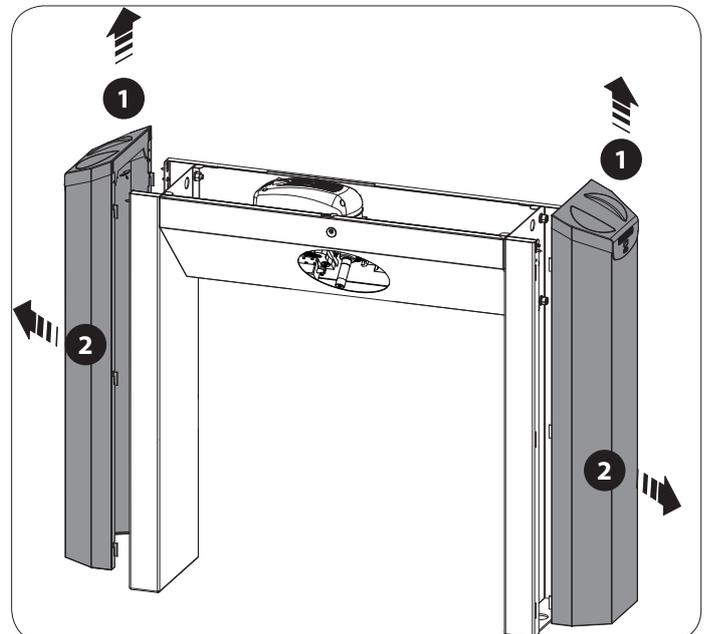
△ Risk of tipping over! Do not lean on the turnstile until it is fully secured.

### Preparing the turnstile

Remove the casing by unscrewing the fixing screws.

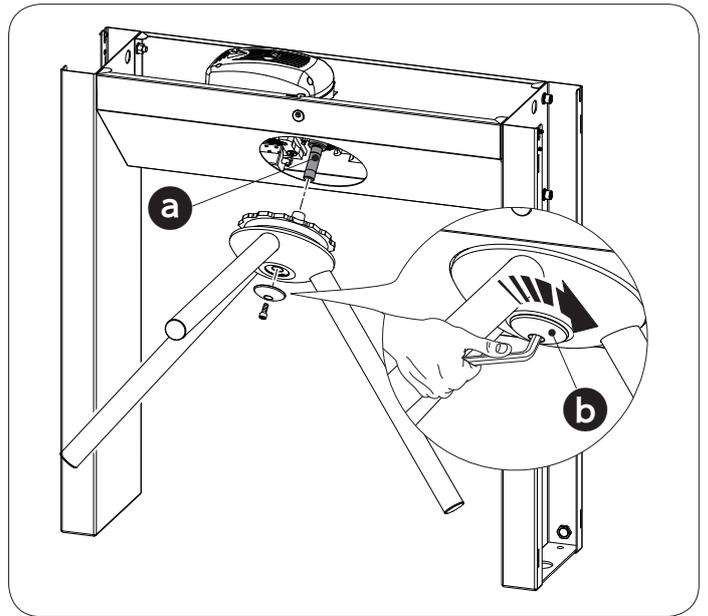
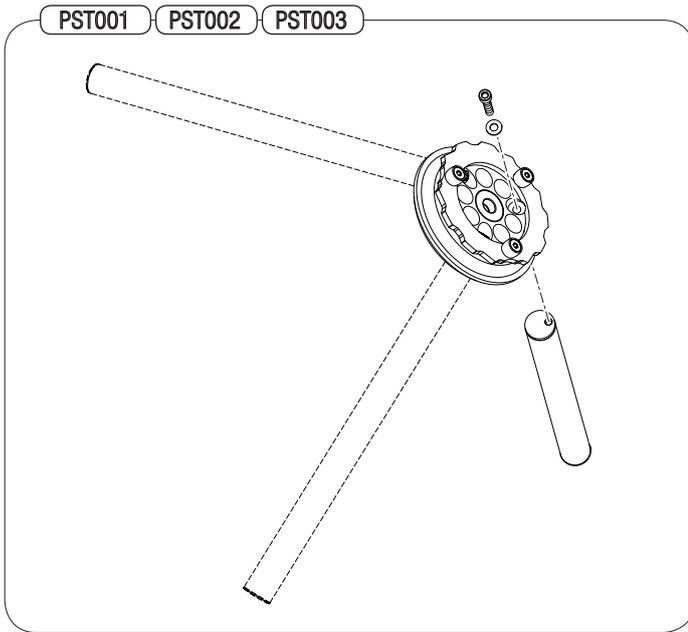


Lift ① and remove them ②.



Attach the arms to the head of the tripod with screws M10x60 and flat head washers.

Fit the tripod into the pin **a** and fix with screws M8x20 and cover **b**.

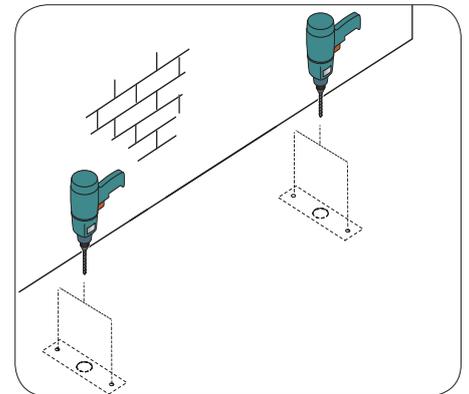
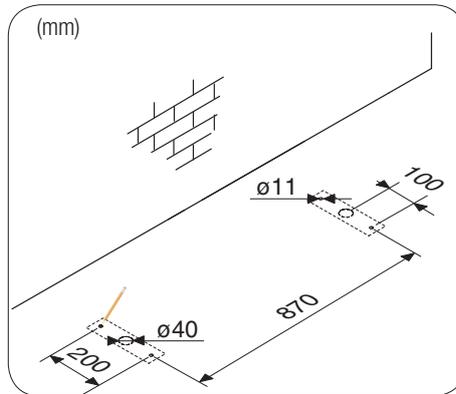
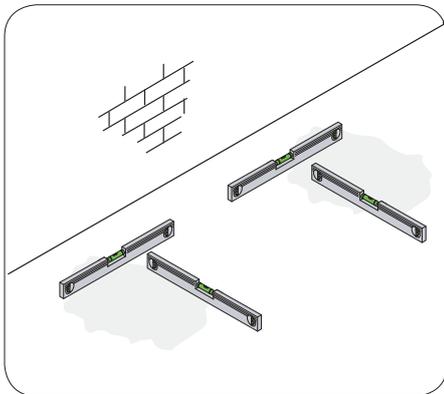


### Securing the turnstile

The floor on which is fixed the turnstile must be perfectly level.

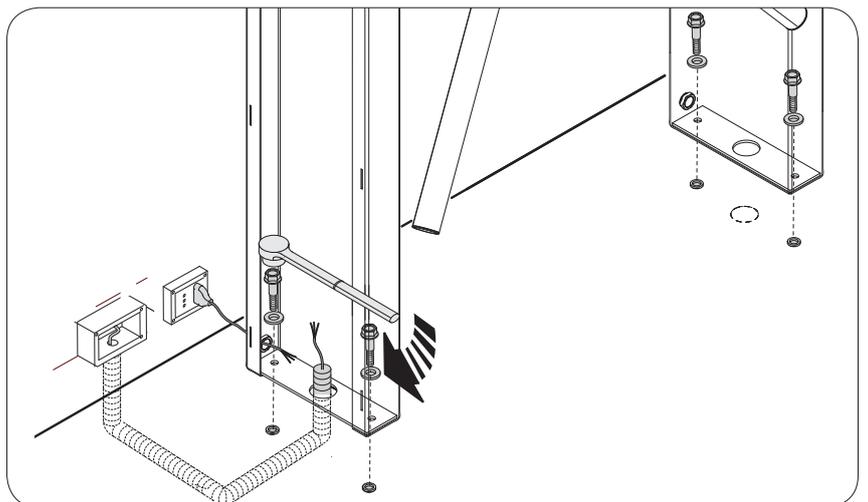
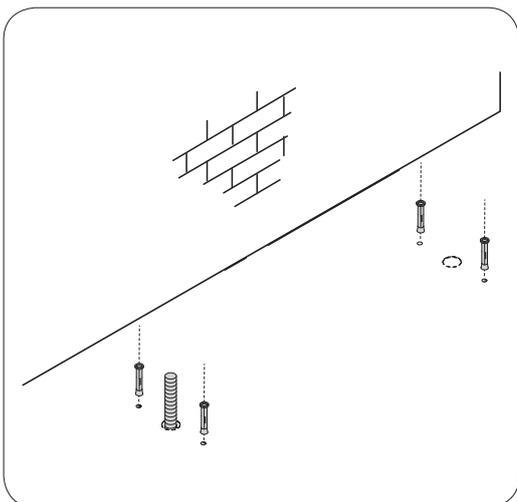
The turnstile anchoring spot depends on the size of the gap and the possible accessories to be connected. Once you have determined the location, use a pencil to mark the drill holes according to the dimensions indicated.

Drill the marked holes and insert the dowels into them.



Place the turnstile over the dowels. If present, the corrugated conduit for the passage of electric cables must pass through the centre hole.

Fix the turnstile with the screws using a ratchet wrench.



## ELECTRICAL CONNECTIONS

⚠ Remove line voltage before intervening on the control board.

Control board power supply (V - 50/60 Hz): 120 - 230 AC.

Control device power supply: 24 V AC.

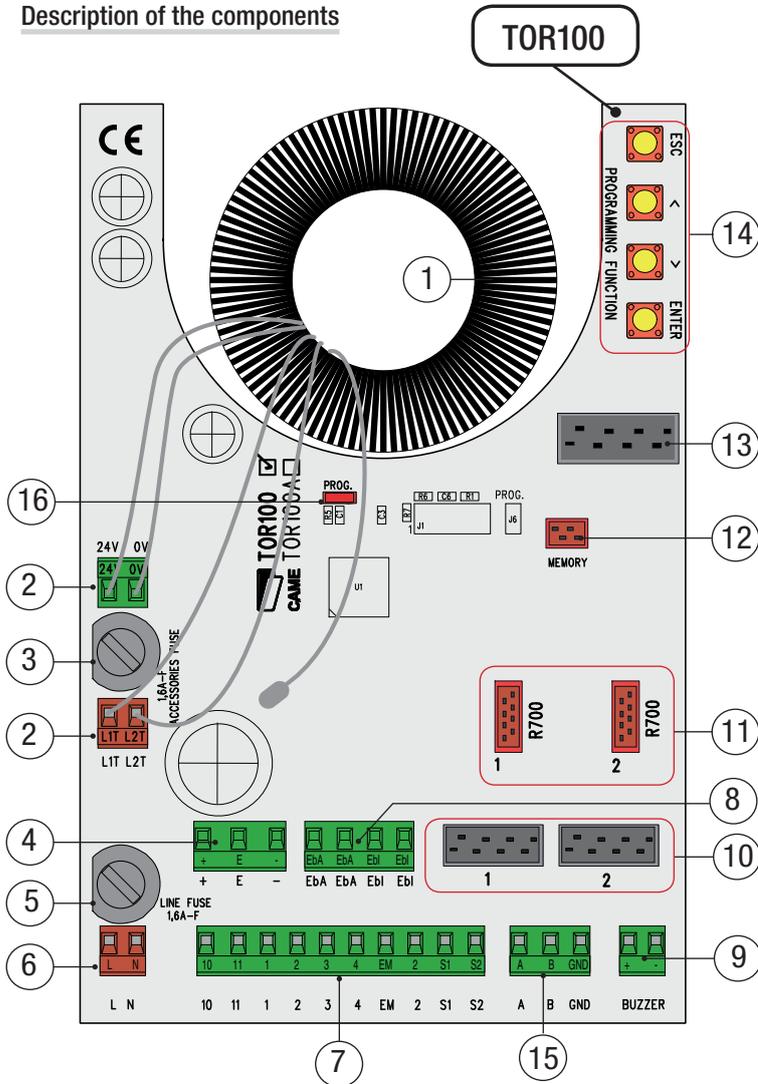
⚠ The total power of the accessories should not exceed 35 W.

📖 The output power at 24V AC is SELV type for which there is a risk of electric shock.

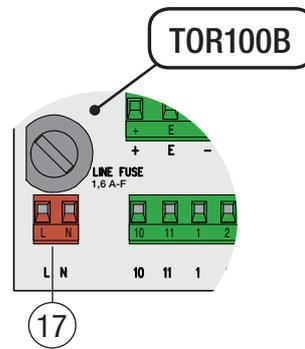
All the connections are protected by quick fuses.

FUSE TABLE	TOR100A	TOR100B
Line fuses (A)	1.6 (230 V)	3.15 (120 V)
Accessories (A)	1.6	6.3

### Description of the components



- Transformer
- Transformer terminal block
- Accessory fuse
- Entrance/exit sensor terminal block
- Line fuse
- Power supply terminal block
- Control and safety device terminal block
- Electric lock terminal block
- Buzzer terminal block (PST003)
- Transponder connectors (PST001)
- R700 card connectors
- Memory Roll card connector
- Direction arrows with display terminal block
- Function programming buttons
- RBM84 terminal block
- Indicator LEDs
- Arm drop power supply terminal block (PST004)



### Power supply

230 V AC power supply for transformer  
(default connections)

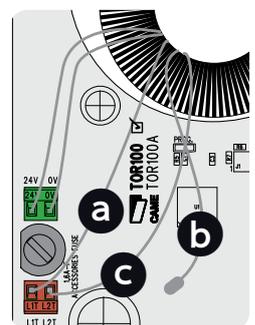
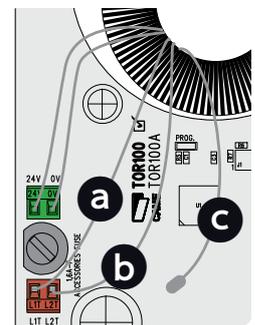
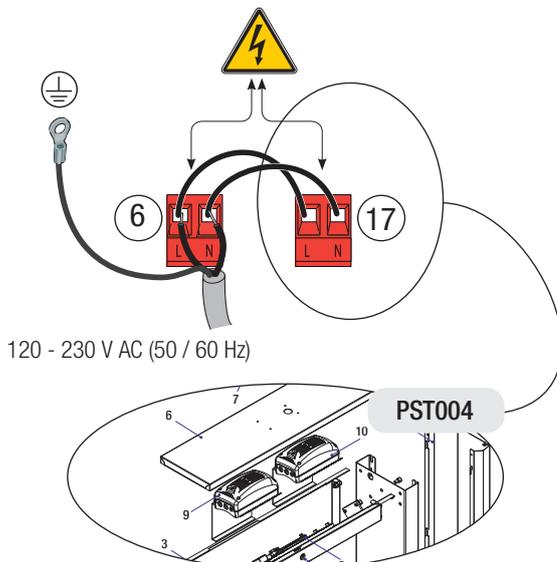
Ref.	Description
<b>a</b>	L1T = White
<b>b</b>	L2T = Red
<b>c</b>	Black (isolated)

120 V AC power supply for transformer  
(Reverse cables **b** and **c**)

Ref.	Description
<b>t o</b>	L1T = White
<b>b</b>	Red (* isolated)
<b>c</b>	L2T = Black

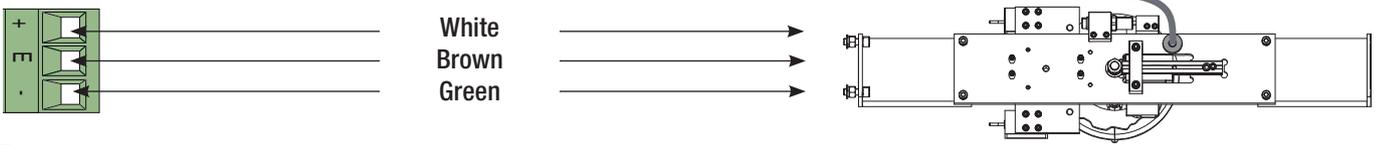
Replace the 1.6 A line fuse with a 3.15 A unit.

⚠ \* Operations reserved for the installing technician!

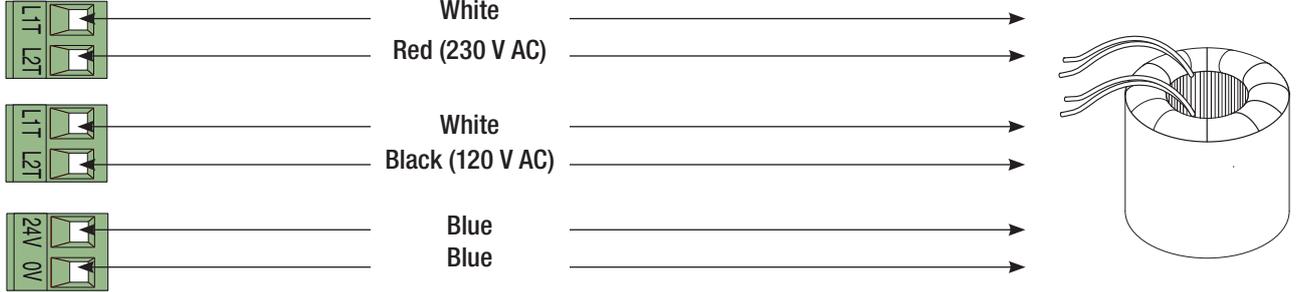


**Devices already connected (all models)**

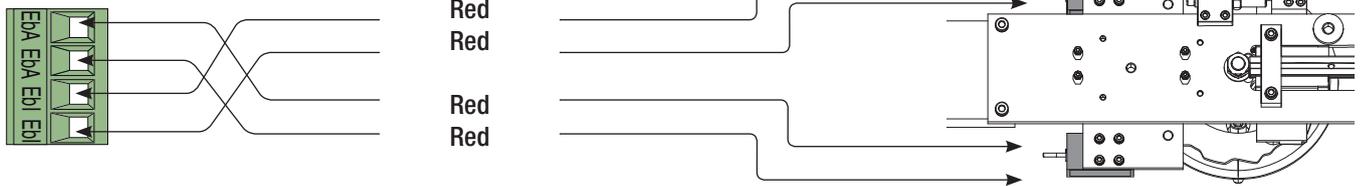
**Entrance/exit sensor**



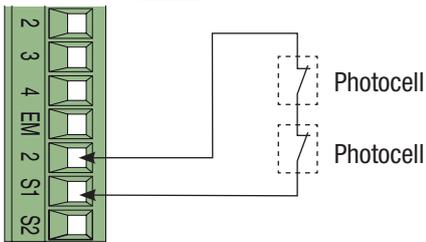
**Transformer**



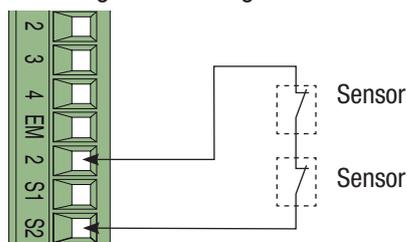
**Electric lock**



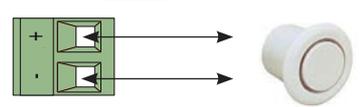
**Photocells (PST003)**



**Protection against climbing over sensors (PST003)**

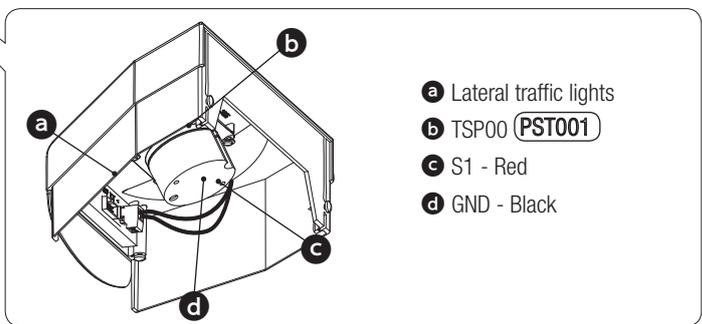
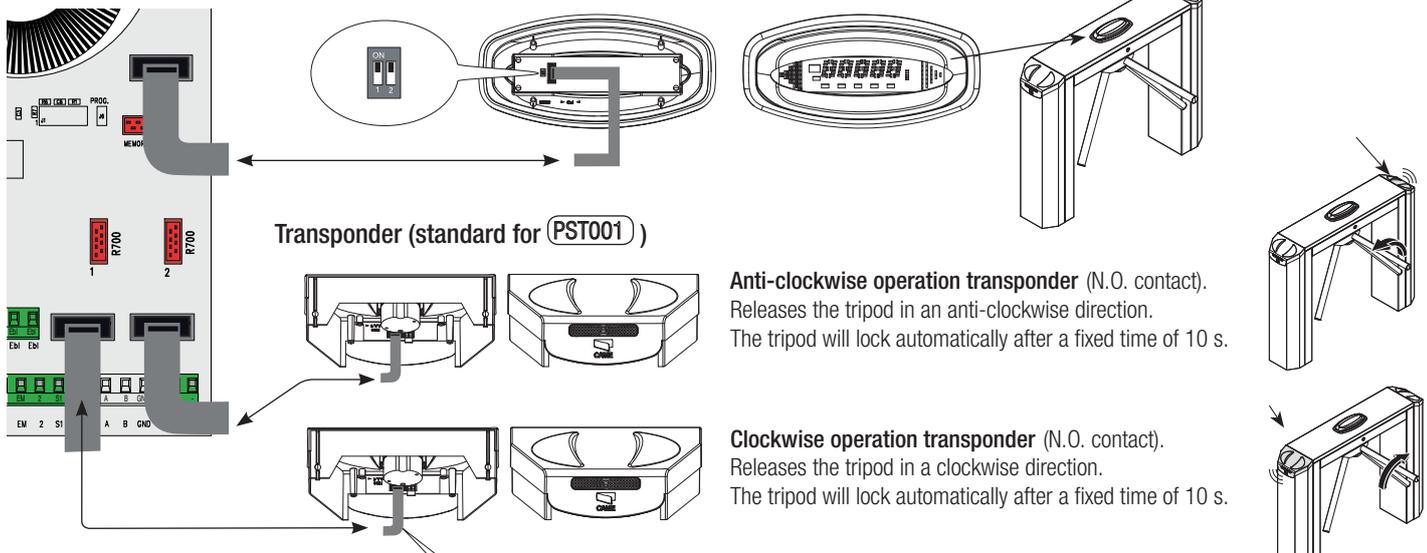


**Buzzer (PST003)**



**Devices to be connected**

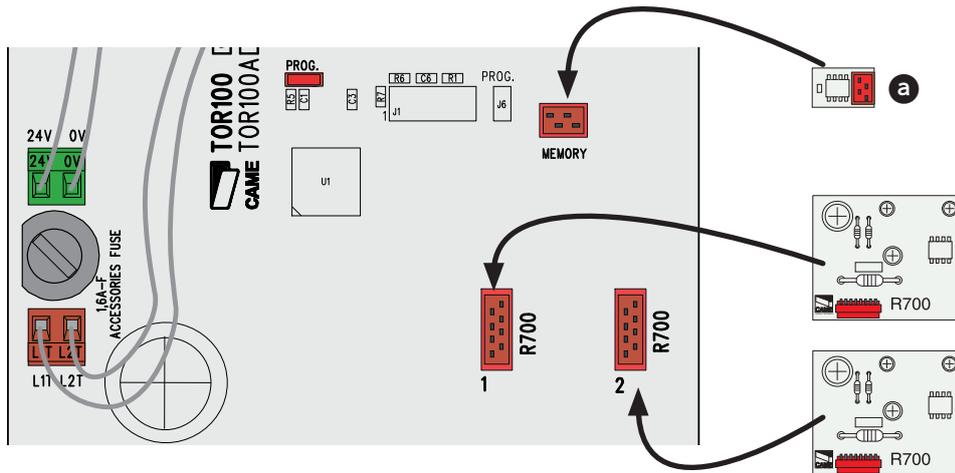
**Direction arrows with display**



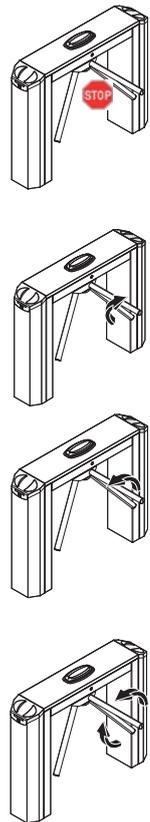
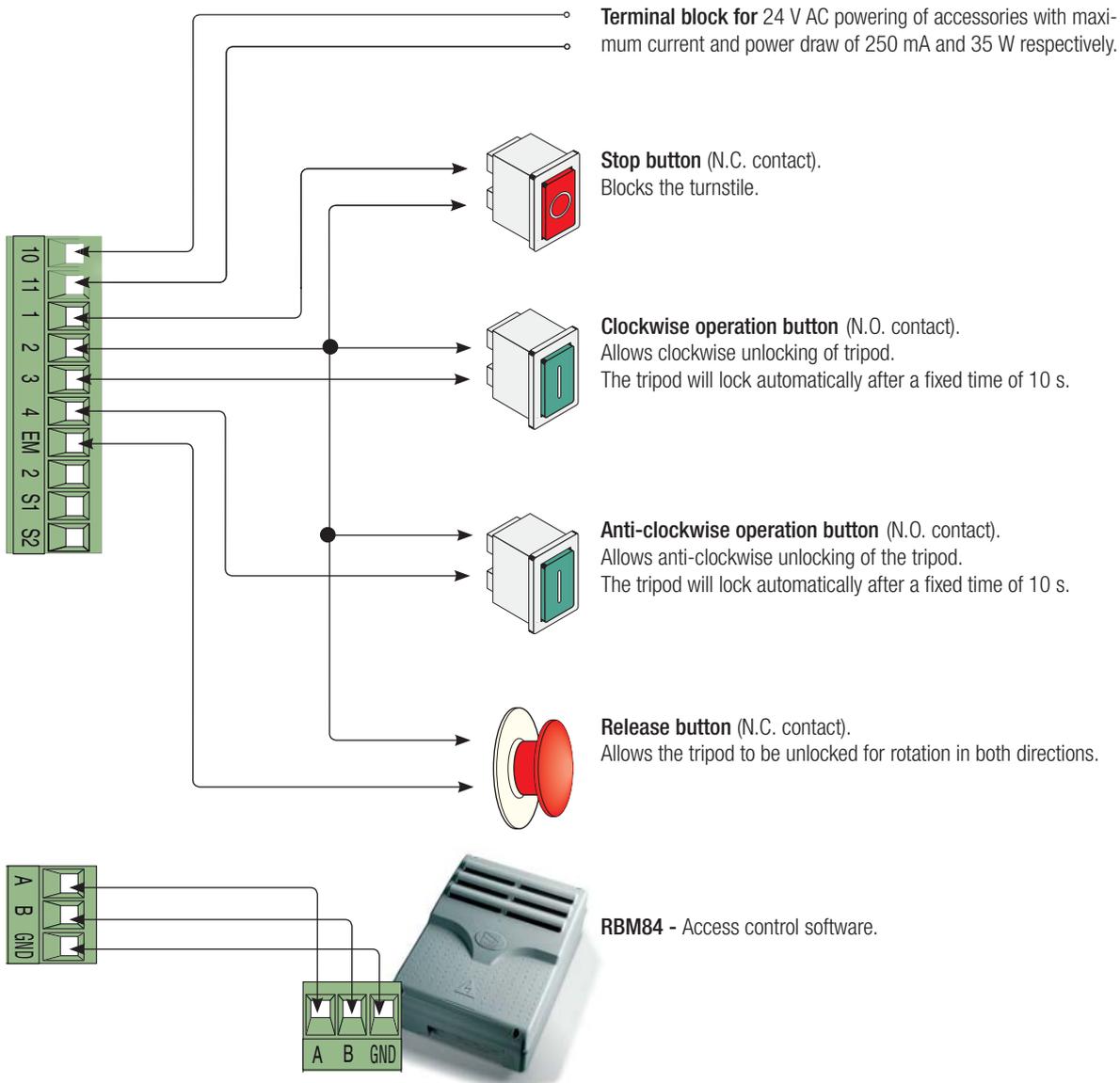
## Decoder card

The R700 decoder cards control the turnstile with the proximity sensors (TSP00) and the Memory Roll **a** to save and load all the settings including users stored in another card.

⚠ For proper operation, before inserting any plug-in card (e.g.: AF, R700), the LINE VOLTAGE MUST BE REMOVED and any batteries disconnected.



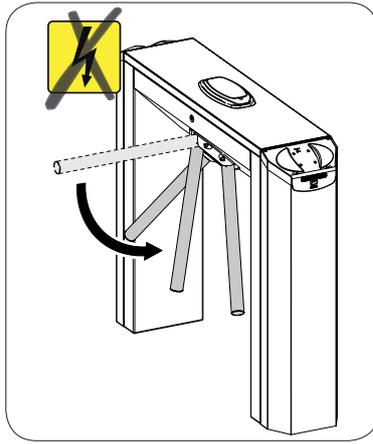
## Control devices



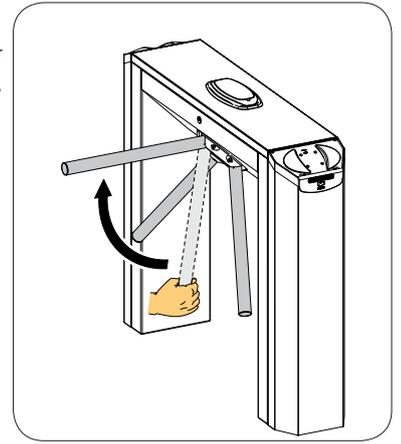
⚠ Wait 10 seconds before performing any operation after connecting the turnstile to the electrical mains.

## Arm drop function PST004

In the event of a power failure, the horizontal arm drops to free the passage.

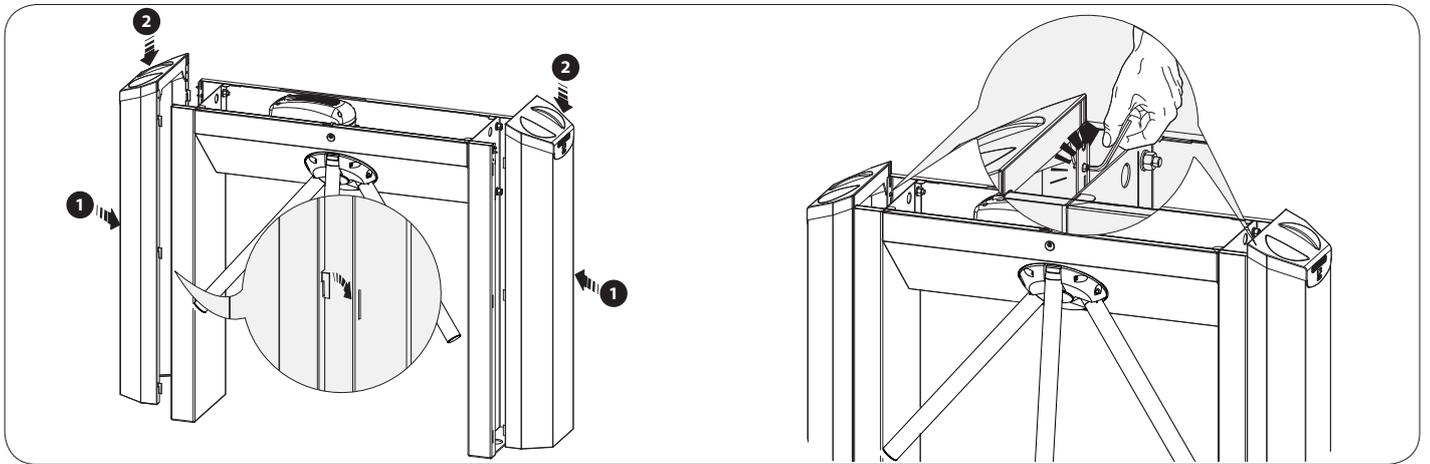


Lift the arm and reset it after power has been restored.



## Securing the side casings

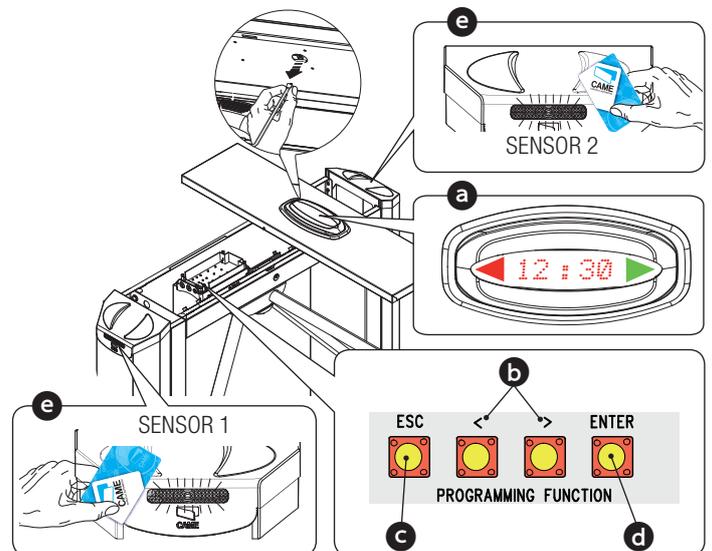
△ Make sure that the hydraulic damper is correctly adjusted (see specific chapter).  
Fit the side casings and secure with the screws.



## PROGRAMMING

Move the cover close and connect the plate to the direction arrow with display.  
The functions can be programmed using the contro panel keyboard and Master card.  
📖 All unused N.C. contacts must be shorted.

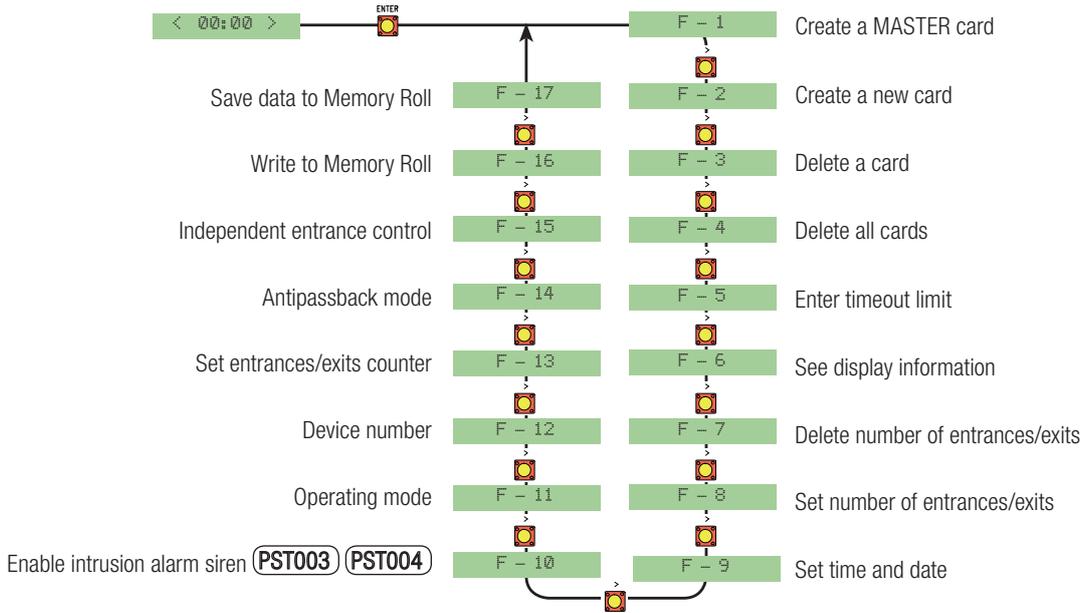
- a** Display that shows the functions and settings assigned using the programming keys or transponder.
  - b** The <> are used to navigate between menu items and increase/decrease a value.
  - c** The **ESC** key is used to exit the menu and cancel the changes.
  - d** The **ENTER** key is used to enter the menu and confirm/memorise the value set.
- Transponder used to add, change and confirm the functions via Master card without opening the turnstile.
- e** Move the Master card near the transponder reader and enter the settings desired.  
**SENSOR 1** Transponder used to confirm the functions and settings(ENTER).  
**SENSOR 2** Transponder used to modify, increase or decrease a value (< >).



## Menu structure

☞ The functions from F-1 to F-4 and from F-14 to F-17 are reserved for access control via transponders (PST001 series) and are displayed only if the TSP00 reader is connected.

☞ The functions F-2, F-3 and F-4 appear on the display only if the MASTER card is created.

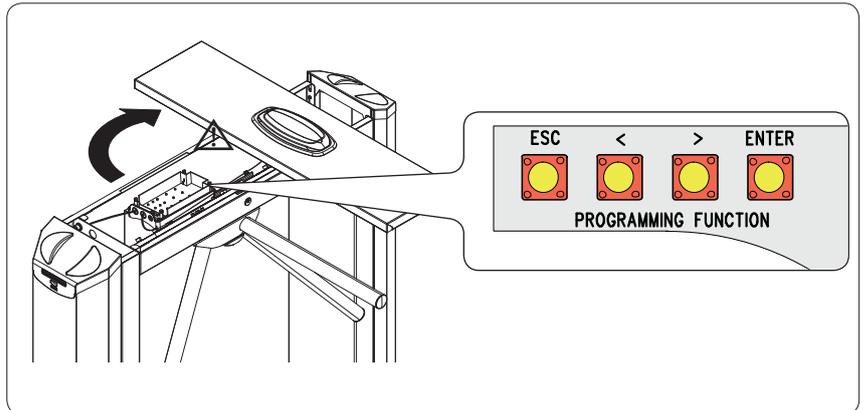


## Menu navigation and programming using the internal keyboard

📖 Before programming carefully read the instructions and perform all steps in the order indicated in order to ensure successful programming outcome.

Open the top cover of the turnstile and set it on the housing turned 90° so that the display can be read easily.  
Open the electric panel box to use the programming keys.

⚠ Place the display cable out of the way of internal moving parts to avoid it from getting caught.



ENTER

Press ENTER to access the menu.

F - 1

< >

To select a function, move using the arrows.

F - 1

F - 2

F - 8

ENTER

Press ENTER to confirm.

< >

Use the arrows to increase/decrease a value in the sub-menus.

OFF

01

02

ENTER

Press ENTER to confirm.

Sto

The message Sto is displayed after confirming with ENTER

Clr

To delete data (e.g.: number of entrances/exits), pressing ENTER to confirm will call up the Clr. message.

## Programming via transponder (MASTER card)

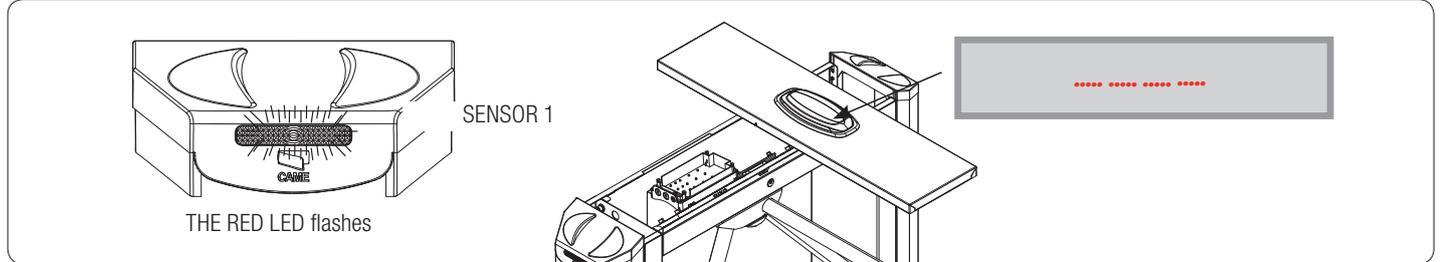
The MASTER card (F-1) must be created using the keyboard in order to program the functions using the transponder.

### Creating a Master card

☞ A flashing display dot means that the Master card has not been created yet. Press ENTER 2 times.

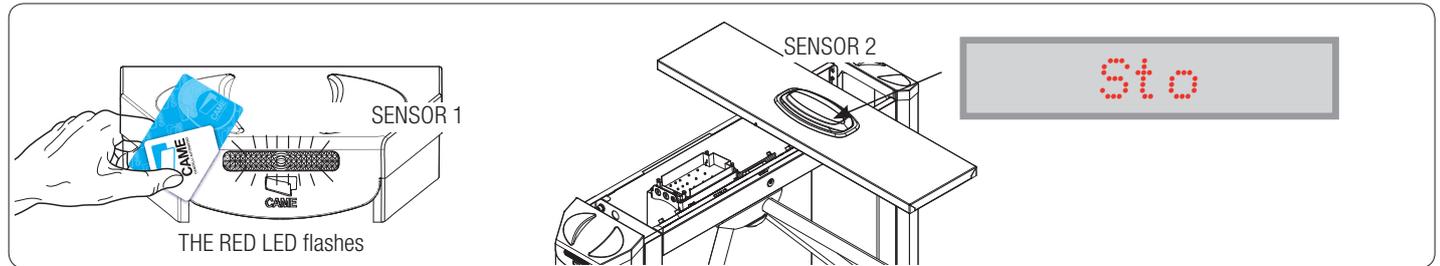


The LED of the transponder "SENSOR 1" flashes RED and lines appear on the display.



Move a card designated as MASTER near the flashing transponder within 10 seconds and leave it for a few seconds until the display reads Sto (Storage).

☞ should you lose the MASTER card, follow the same procedure as in point 1 with a new card.

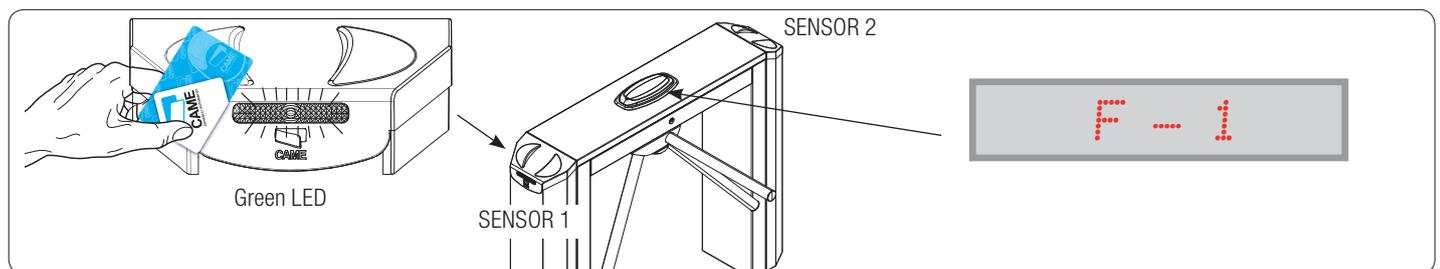


### Menu navigation and programming using the Master card

⚠ Always create the Master card first and keep it to navigate the functions menu..

Enter the functions menu by bringing the Master card near the transponder (SENSOR 1). The display reads F-1. The transponder will remain green during the programming phase.

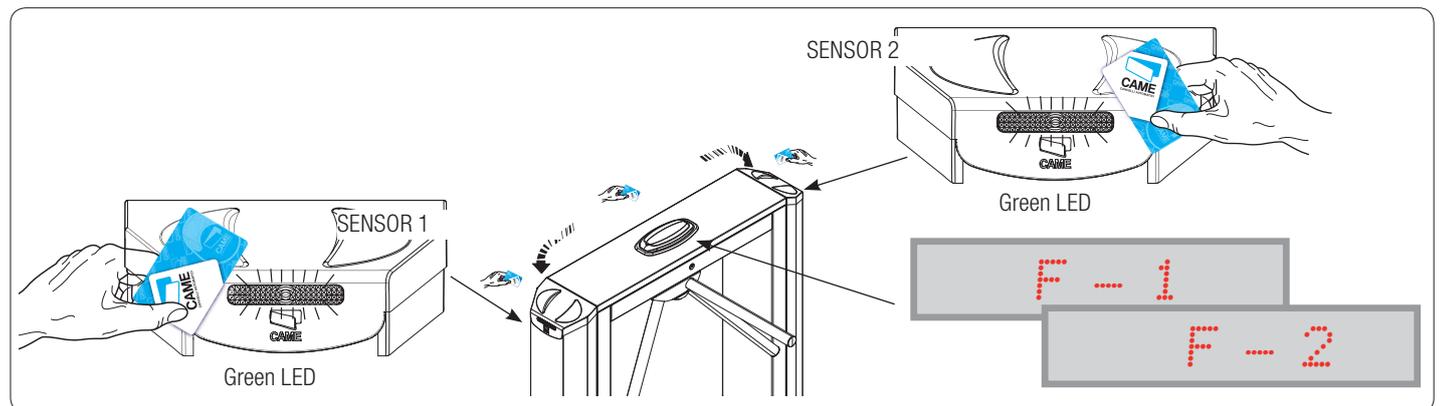
Carrying out this procedure is similar to pressing "ENTER" on the keyboard.



Swiping the Master card from right to left, or vice-versa, allows the user to set the functions without opening the turnstile.

(SENSOR 1) Transponder used to confirm the functions and settings (ENTER).

(SENSOR 2) Transponder used to modify, increase or decrease a value.

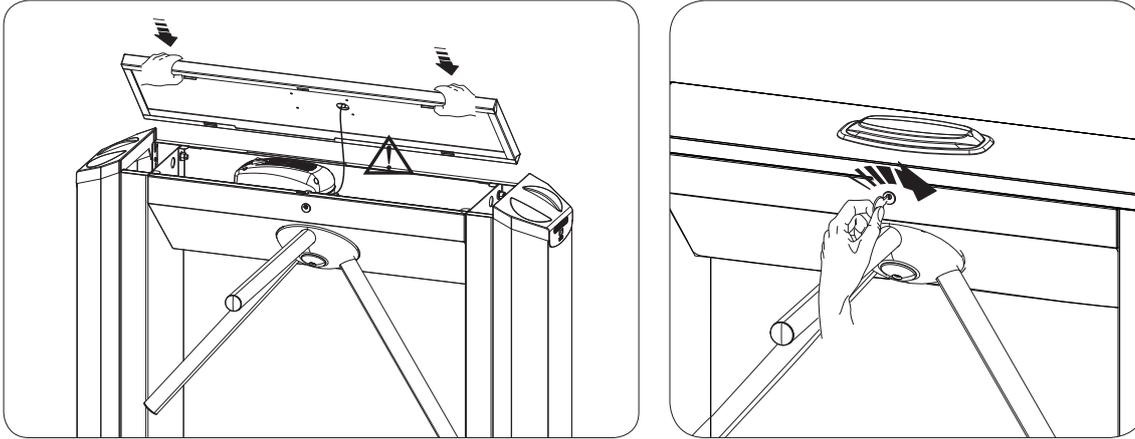


## Function menu

<b>F-1</b>	<b>Create a MASTER card</b> for function programming with a transponder card.
<b>F-2</b>	<b>Create a new card</b> (up to 500 cards).
<b>F-3</b>	<b>Delete a card.</b> Select the number assigned to the card to delete using the key or place the card on the transponder (SENSOR 1); the display will show the card number. Press ENTER to confirm deletion.
<b>F-4</b>	<b>Delete all cards</b>
<b>F-5</b>	<b>Set standby time.</b> After an open command is relayed via key (2-3 / 2-4) or transponder, the turnstile will remain unlocked for a time that can be set between 10 to 60 seconds.
<b>F-6</b>	<b>Call info onto the display screen</b> The user can select the type of information to view on the display: number of entrances/exits, time or neither of the two.
<b>F-7</b>	Clear number of passages (entrances-exits through the turnstile)
<b>F-8</b>	<b>Set maximum number of entrances/exits allowed</b> in the direction defined with F-13. From 1 to 65,000 or unlimited (selecting OFF).
<b>F-9</b>	<b>Set date and time.</b> It is possible to select automatic setting of daylight saving time (ON) or standard time (OFF).
<b>F-10</b>	<b>Buzzer</b> The intruder alert buzzer can be activated or deactivated. The buzzer sound can be set from 1 to 60 seconds.
<b>F-11</b>	<b>StandAlone / OnLine Operating mode</b> StandAlone Mode) Online Mode the turnstile is Controlled by an access control system (RBM84).
<b>F-12</b>	<b>Device number.</b> A device number can be assigned to each turnstile.
<b>F-13</b>	<b>Set opening direction.</b> The direction set is indicated by the display arrow.
<b>F-14</b>	<b>Antipassback Mode.</b> Enables or disables the antipassback function. Prevents access to an area when the person is already within the confines. This function avoids the use of a card for two or more consecutive accesses to the same area.
<b>F-15</b>	Independent entrance/exit control. Only with F-11 in StandAlone mode. <b>Free</b> free access <b>Restricted</b> acceded denied <b>Controlled</b> access allowed only to enabled users <b>OFF</b> access allowed only to authorised users  <b>Settable modes:</b> <b>Entrance</b> exit <b>Controlled</b> Controlled <b>Restricted</b> free <b>Free</b> restricted <b>Restricted</b> Controlled <b>Controlled</b> restricted <b>Free</b> Controlled <b>Controlled</b> free
△ Excludes enabling of F-8 and F-14	
<b>F-16</b>	<b>Data storage to Memory Roll.</b>
<b>F-17</b>	<b>Read data in Memory Roll.</b>

## FINAL OPERATIONS

- △ Make sure that the hydraulic damper is correctly adjusted (see specific chapter).
  - △ Place the display cable out of the way of internal moving parts to avoid it from getting caught.
- Place the cover back on and engage the lock with the key.



## ADJUSTING THE HYDRAULIC DAMPER

☑ Proper adjustment of the hydraulic damper is a necessary condition for the correct turnstile operation with reduction of mechanical stress on the system.

△ Both the working temperature and duty cycle must be taken into account to properly adjust the hydraulic damper.

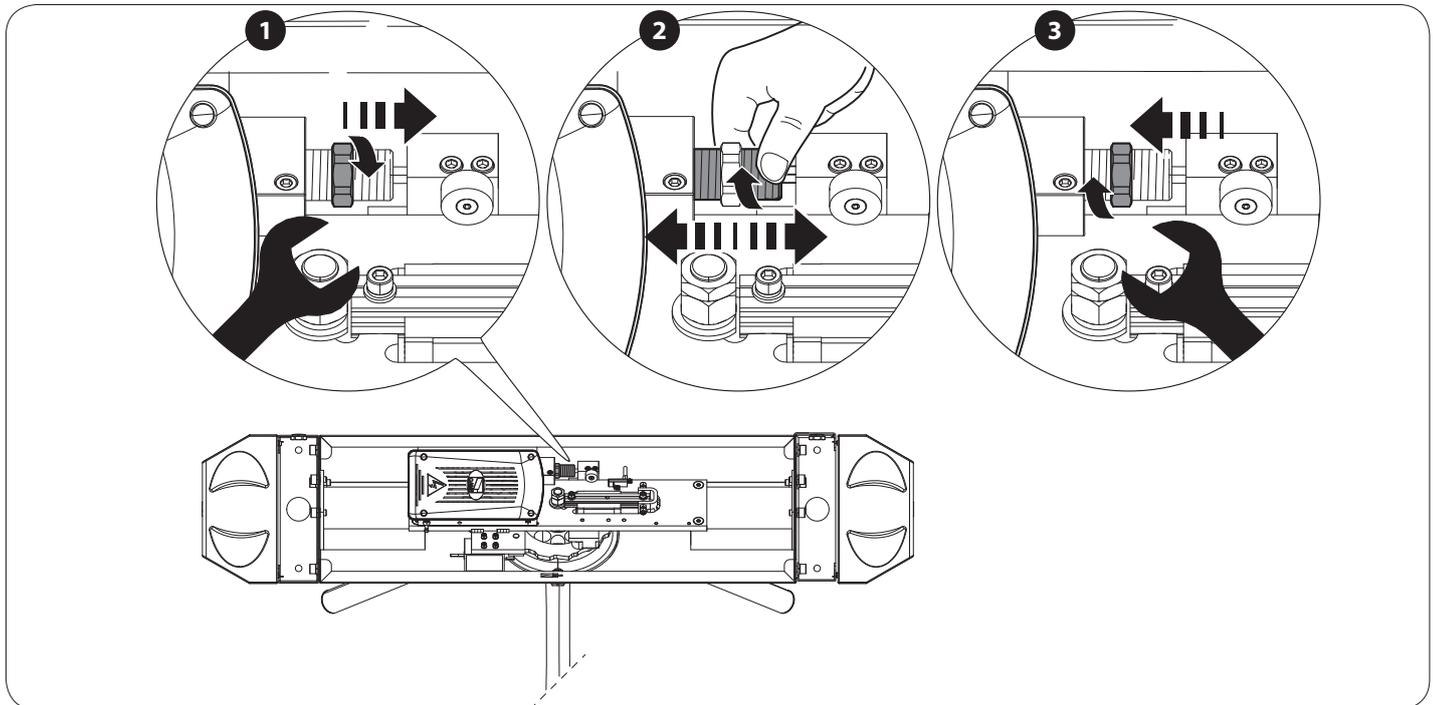
△ Remove line voltage during installation and make sure that the tripod moves freely.

❶ Loosen the bolt.

❷ Simulate use by acting on the tripod and, while screwing/unscrewing the damper, adjust braking force of the rotating mechanism: it must smoothly reach the end run during slowdown.

△ Make sure that slowdown is as expected for both clockwise and anti-clockwise rotation.

❸ Lock the hydraulic damper by tightening the bolt.



## MAINTENANCE

Before any maintenance, disconnect line voltage to prevent any possible dangerous situations that can be caused by accidental movement.  
For proper maintenance of steel, please consult the manual 119RW48 on steel cleaning operations.

### Periodic maintenance

Model	Operating Limits	MCBF
PST001		
PST002	Maximum number of daily cycles: 15,000	1,500,000
PST003	Maximum number of cycles per minute: 12 (1 cycle every 5 seconds)	
PST004		

### Every 400,000 cycles and at least every 6 months:

1. Check turnstile internal wiring and verify that there are no loose or damaged cables.
2. Check that there are no abnormal movements and that rotation is smooth by turning the tripod. Any sudden stopping could be a sign of malfunction.
3. Check that turnstile is securely fixed to the ground by trying to move it; poor ground anchoring could lead to danger.
4. Check bolt tightness.
5. Check hydraulic damper adjustment.

6. Check the efficiency of lock/release levers.
7. Linear rail cleaning/lubrication.
8. Check Roller condition.

### Each 1,000,000 cycles, replace:

9. Rollers and electric locks.

### Each 3,000,000 cycles, replace:

10. Runner springs.

## TROUBLESHOOTING

PROBLEMI	POSSIBLE CAUSES	CHECKS AND REMEDIES
The turnstile remains unlocked in both directions	<ul style="list-style-type: none"><li>• No power</li><li>• Emergency or release button pressed</li><li>• Electric locks out of order</li></ul>	<ul style="list-style-type: none"><li>• Check for mains power</li><li>• Reset the emergency button or release button</li><li>• Contact service</li></ul>
The turnstile unlocks only in one direction	<ul style="list-style-type: none"><li>• One of the electric locks is out of order</li><li>• The spring of one of the electric locks has come unlatched</li><li>• Button 2-3 or 2-4 is pressed</li></ul>	<ul style="list-style-type: none"><li>• Contact service</li><li>• Restore the spring</li><li>• Check the contact</li></ul>
The turnstile remains locked	<ul style="list-style-type: none"><li>• The person going through leaned on the arm too early.</li><li>• Both electric locks remain energised</li><li>• Stop button active</li></ul>	<ul style="list-style-type: none"><li>• Ask the person to stand free of the arm and try again</li><li>• Contact service</li><li>• Check the release command validity</li></ul>
The tripod fails to slowdown at end run	<ul style="list-style-type: none"><li>• The hydraulic damper is out of order</li></ul>	<ul style="list-style-type: none"><li>• Adjust the hydraulic damper</li></ul>
The turnstile remains unlocked after passing through it	<ul style="list-style-type: none"><li>• The entrance/exit sensor is positioned incorrectly</li><li>• The entrance/exit sensor is out of order</li></ul>	<ul style="list-style-type: none"><li>• Check the position of the entrance/exit sensor</li><li>• Contact service</li></ul>
Err-A	<ul style="list-style-type: none"><li>• Reports access denied for "user already in the area".</li></ul>	<ul style="list-style-type: none"><li>• Issue an exit command</li></ul>
Full	<ul style="list-style-type: none"><li>• Reports access denied due to maximum number of accesses allowed reached.</li></ul>	<ul style="list-style-type: none"><li>• Implement the F-8 function</li></ul>
Err	<ul style="list-style-type: none"><li>• Reports that the user is attempting to store a card (F-2) already in the memory.</li></ul>	<ul style="list-style-type: none"><li>• Use a card that has not been stored</li></ul>

## DISMANTLING AND DISPOSAL

CAME CANCELLI AUTOMATICI S.p.A. implements an EN ISO 14001-certified and compliant Environmental Management System at its plants, to ensure environmental protection.

Please continue our efforts to protect the environment, something that CAME considers to be one of the foundations in developing its business and market strategies, simply by observing brief recommendations as regards disposal:

### DISPOSAL OF PACKAGING

Packaging components (cardboard, plastic, etc.) can be disposed of together with normal household waste without any difficulty, by simply separating the different types of waste and recycling them.

Before proceeding, it is always advisable to check specific regulations in force in the place of installation.

### DISPOSE OF PROPERLY!

### DISPOSAL OF THE PRODUCT

Our products are made with different materials. Most of them (aluminium, plastic, iron, electrical cables) can be disposed of together with normal household waste. They can be recycled if collected, sorted and sent to authorised centres.

Other components (control boards, transmitter batteries, etc.), on the other hand, may contain pollutants.

They should therefore be removed and handed over to companies authorised to recover and recycle them.

Before proceeding, it is always advisable to check specific regulations in force in the place of disposal.

### DISPOSE OF PROPERLY!

## REFERENCE REGULATIONS

The product complies to the reference regulations in effect.

**CAME**  
safety & comfort



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