AUTOMATIC SYSTEMS

TRS PMR

Security door

TECHNICAL MANUAL

(English translation of the original French version)

Rev. 04 • Updated 02/2026

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1. INTRODUCTION

Thank you for choosing the **TRS PMR**, a security door designed and manufactured by Automatic Systems.

TRS PMR security doors are designed for access control for people with reduced mobility.
They allow the incorporation of control equipment, such as: proximity readers, barcode scanners, badge collectors, etc.

Fully autonomous and robust, they are especially well-suited to outdoor security at sensitive, high-traffic facilities, such as industrial, sports, commercial and office complexes, airports, power stations, amusement parks, military bases, car parks, etc.

The TRS PMR door is bidirectional and can be operated manually or be motorised.

It is designed to fit perfectly into the range of TRS37x drums for side-by-side or remote installation. Since it is completely autonomous, the TRS PMR door can be installed at the right or left end of an existing TRS37x battery or inserted in the middle of the battery. The operating mode of the equipment does not guarantee a single passage after opening the door.

The mechanism controlling the rotation of the door leaf is the result of many years of experience in the development and manufacture of access control equipment and the sale of tens of thousands of units worldwide.

The mechanical and electronic assembly is located in the upper part of the door (in the head unit, fitted with a lockable access panel) and is therefore out of reach of users. Connection and floor mounting require some civil engineering work, which is described in this document.

In order to limit its size, the equipment is delivered in several sub-assemblies and the final assembly takes place on site.

Several options are available to cover all situations likely to be encountered in pedestrian access control: Light-sensitive switch for activating the lighting, heating element, function pictograms coupled with the operation of a card reader, manual release with fire brigade key (France only), canopies, card reader box.

In terms of finish, the mobile obstacle is available in steel or brushed stainless steel (optional), in a range of RAL colours.

With regard to floor mounting, two options are proposed: mounting on finished floor or delivery of a fixing frame to be set in concrete.

We are confident that your purchase will give you many years of satisfaction, which is why we encourage you to read the following information carefully.

It will guide you through the unpacking, installation, commissioning and servicing of your equipment.

Correct installation and regular servicing will ensure that the equipment works properly and will significantly extend the service life of its components.

Despite the care taken in compiling this manual, you may find certain points seem incorrect or unclear. If this is the case, please do not hesitate to send us your comments or questions.

PRIOR WARNING

YOUR SECURITY DOOR INCLUDES MECHANICAL AND MISCELLANEOUS ELECTRICAL COMPONENTS. ANY NEGLIGENCE DURING ANY INTERVENTION CAN HAVE SERIOUS CONSEQUENCES FOR YOUR SAFETY. FROM THE MOMENT WHERE YOU OPEN THE HEAD UNIT, CUT OFF THE GENERAL SUPPLY TO THE EQUIPMENT. HANDLE ANY INTERNAL ELEMENT THAT MAY BE POWERED ON OR ON THE MOVE VERY CAREFULLY.

2. SAFETY WARNINGS

Please read this document carefully and in its entirety before commissioning the equipment and keep it in a safe place for future use. Failure to comply with the instructions in this document may result in damage to the equipment or in serious bodily injury.

- This manual must be available to anyone working on or using the equipment: installer, maintenance operator, end user, etc.
- This equipment is designed to control the passage of pedestrians and cannot be used for any other purpose without risk to the user or to the integrity of the equipment.
- Employees working on the premises must be trained to use the gates beforehand. Failure to provide such user training may result in serious injuries or accidents.
- For safety reasons, children (users under 1 m tall) must be kept under adult supervision in the vicinity of and while using the door. If children are going to use it on a regular basis, Automatic Systems recommends fitting all of the specific options designed to optimise the level of protection.
- The utmost caution must also be exercised with animals, which must be kept on a leash and under the control of their owners at all times.
- Do not install this equipment in an explosive area.
- The contractor must ensure that local standards are met when installing the equipment.
- Any work on the equipment must be carried out by qualified staff. Any unauthorised work on this product, or any work carried out by an unqualified technician, will automatically invalidate the manufacturer's warranty.
- Personal protective equipment (PPE) must be worn for all work:

- Cut-resistant gloves must be worn when carrying out mechanical work and/or work involving intentional or accidental contact with sheet metal parts or with the frame.
- Access to the mechanism must be restricted to staff who are familiar with the electrical and mechanical risks involved in the event of careless handling.
- For any operation that does not require the equipment to be powered on, disconnect the power supply at the distribution board or circuit breaker (⇨ Item **4**,Chap. 5.4.3, page 14).
- Any internal parts that may be live or moving must be handled with care.
- Electronic Static Discharge (ESD) gloves or wristbands must be worn when handling electronic boards, otherwise the warranty may be invalidated.
- The equipment is configured in minimal risk mode for its users. Any changes to the settings must be carried out by knowledgeable and qualified staff and shall in no way incur the liability of Automatic Systems.
- If the product is subsequently resold, the reseller is responsible for ensuring in the offer, sale and installation of each item of equipment that the foreseeable environment and use of the equipment take account of the technical features of the equipment and meet these requirements.
- The reseller will indemnify Automatic Systems and hold it harmless against any claim that may be brought against Automatic Systems as a result of the reseller's failure to fulfil the foregoing obligations.
- For any operation that does not require the motor or logic system to be live, shut off the power supply before opening the body.
  Otherwise, shut off the power supply using the circuit breaker (⇨ Item **4**,Chap. 5.4.3, page 14).
- Except when performing maintenance, it is prohibited to use the equipment if one or more components of the body are missing.

3. OVERVIEW OF SYMBOLS USED

The following symbols are used in this manual or can be found on labels inside the equipment:

This symbol is used to highlight a **tip** that can help you to better understand the equipment.

Quick reminder or **tip** to help you understand how the equipment works.

This symbol is used to highlight **an important operating and/or maintenance instruction**.

Caution: This symbol is used to highlight a **risk of injury or property damage**.

This symbol is used to highlight a **risk of electric shock or electrocution**.

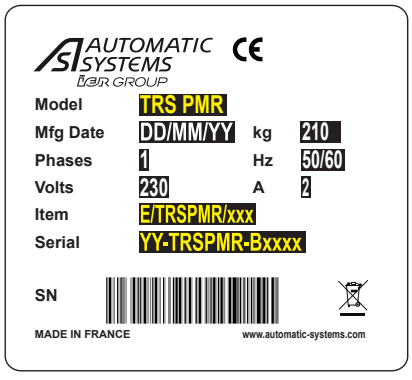
This symbol is used to highlight a **risk of cuts**.

This symbol is used to identify the **main earthing connection point**.
(It can be shown on a sticker or can be directly engraved on a mechanical part)

This symbol is used to indicate which **tools** are required to carry out the operation.

This symbol indicates that this equipment is **in conformity with European standards and directives**.

This symbol indicates that the equipment must be **discarded in accordance with the relevant European Directives** (WEEE 2012/19 / EU).



Equipment identification label.

4. TERMINOLOGY

AS	**Automatic Systems**
TRS	Rotary security drum [Tambour Rotatif de Sécurité]
PMR	Person with Reduced Mobility
CTRL	Control
DI	Digital input
DO	Digital output
I/O	Input/Output
OOS	Out of Service
HMI	Human-Machine Interface
LCA	Card reader in direction A
LCB	Card reader in direction B
NC	(contact) Normally Closed
NO	(contact) Normally Opened
Direction A	By convention, this is the direction of passage for which the hinge of the mobile obstacle is located to the right of the passage.
Direction B	Direction contrary to direction A. Direction B is the direction of passage for which the hinge of the mobile obstacle is located to the left of the passage.

5. DESCRIPTION

5.1. OVERALL DIMENSIONS

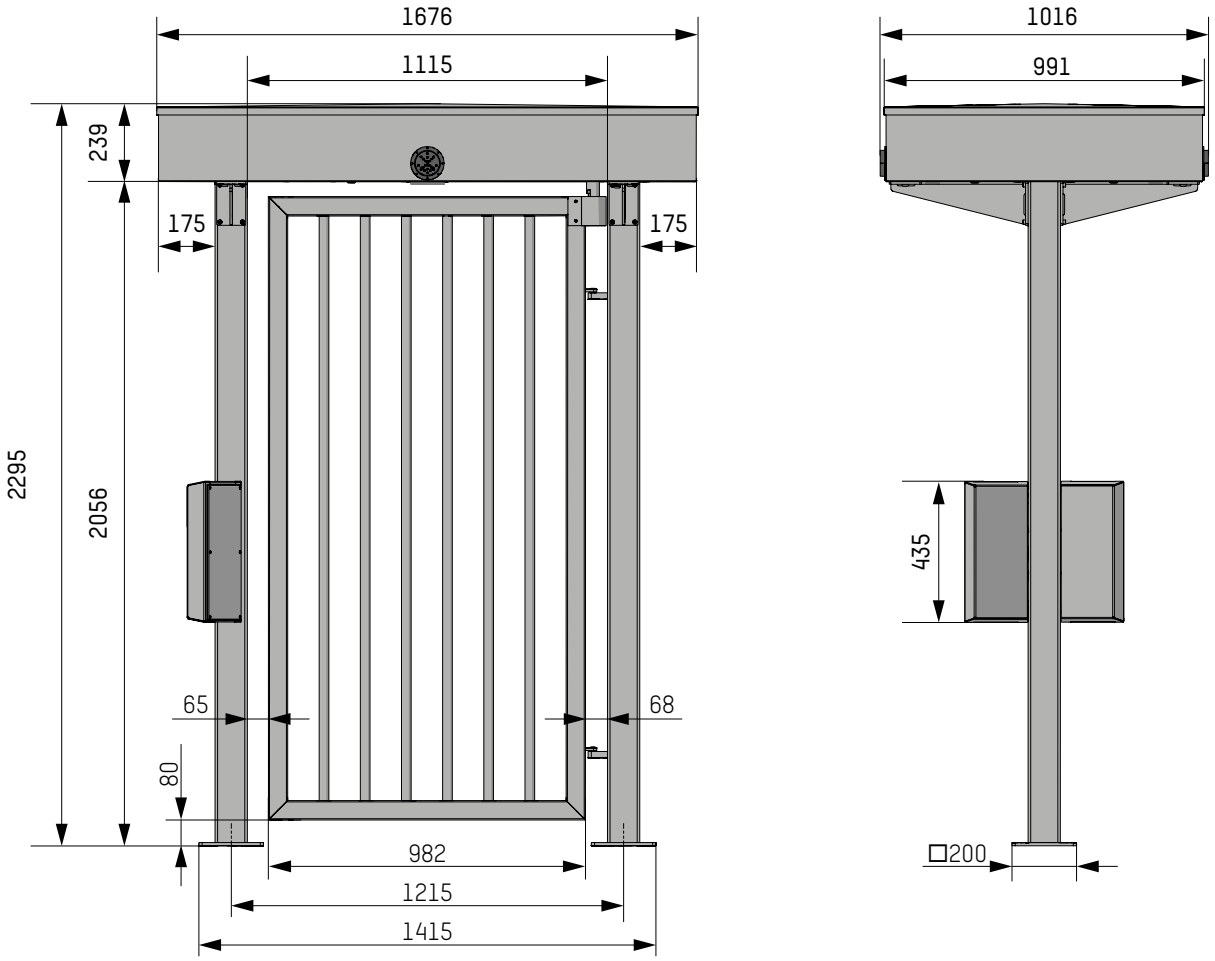


Fig. 1 - Overall Dimensions

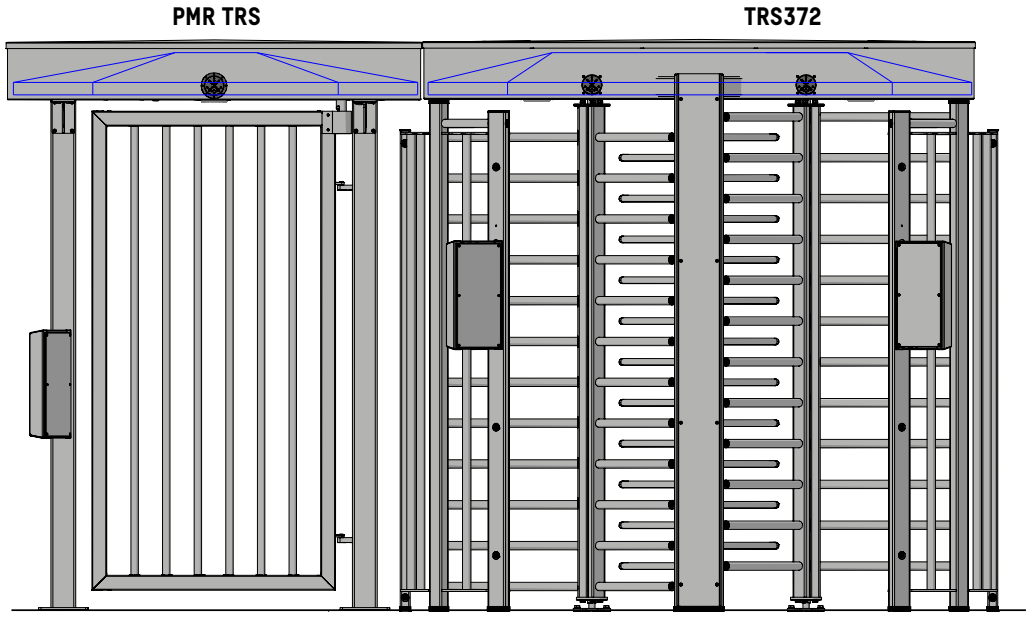


Fig. 2 - TRS PMR to the left of a TRS372 (seen in direction A)

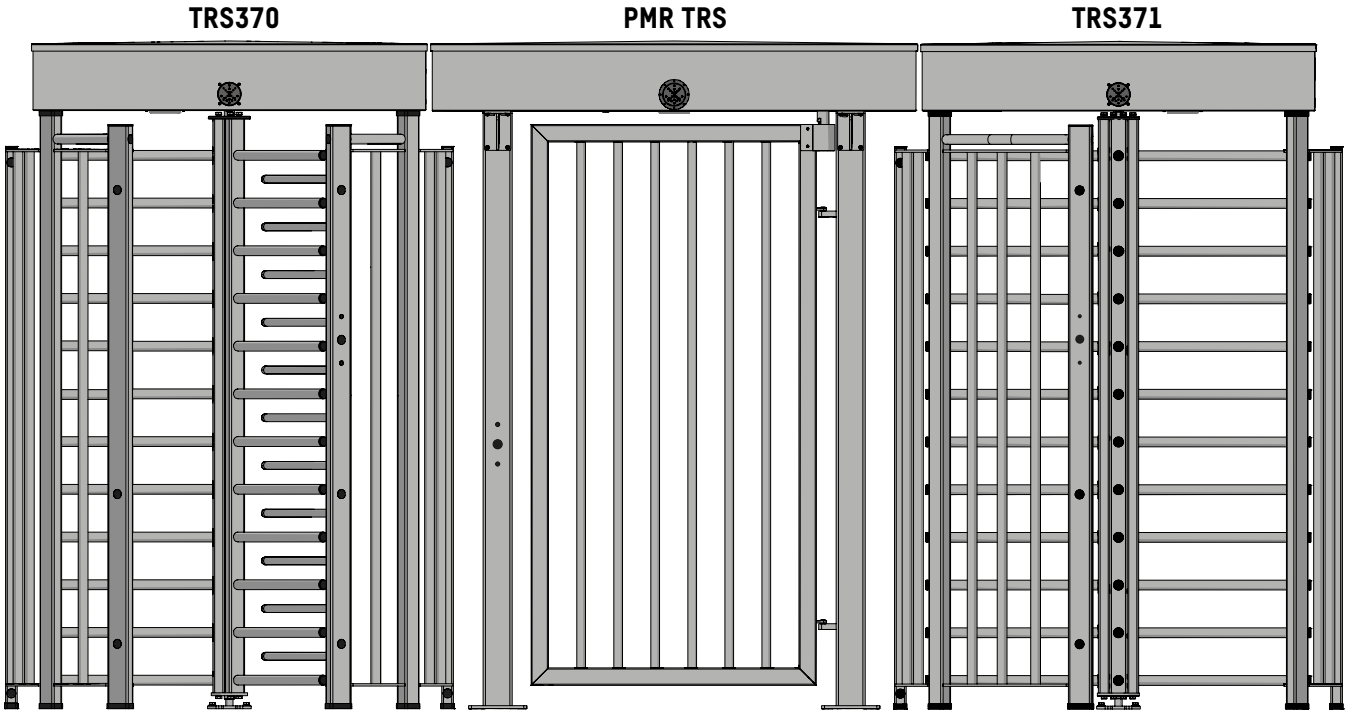


Fig. 3 - TRS PMR interspersed between two turnstiles TRS37X (seen in direction A)

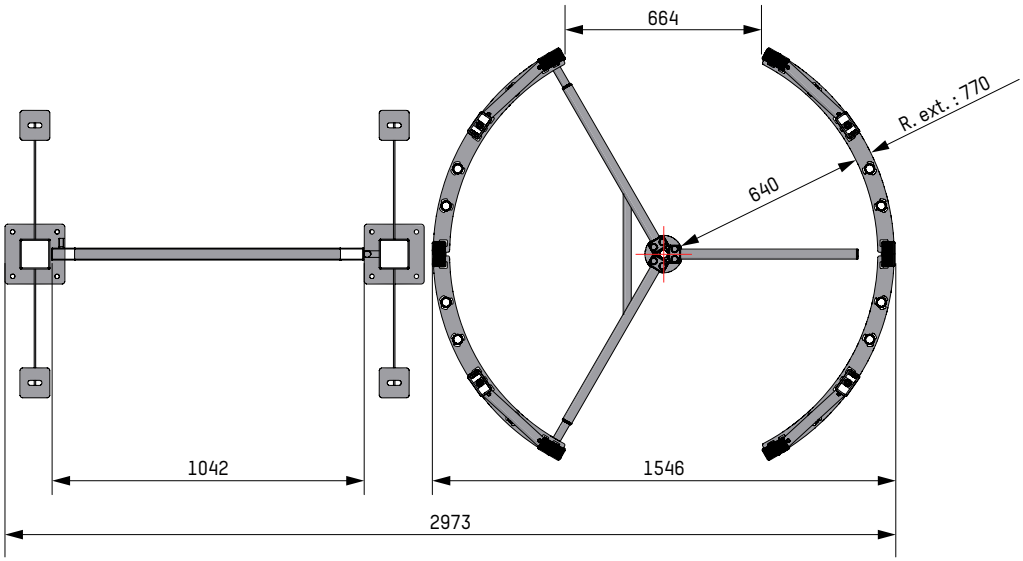


Fig. 4 - Floor footprint of a TRS PMR + TRS371

Since the two devices are completely independent, the residual space between the two can vary from one installation to another. However, a connecting piece is provided between the two fixing frames.

5.2. CONVENTIONS

The figure below shows the positioning of the readers in direction A and direction B. The reader(s) may be fixed to the vertical mount that **does not contain** the hinges of the mobile obstacle. However, other positions are possible on request.

CAUTION! CHECK THE CONSISTENCY OF THE MODE OF OPERATION IN DIRECTIONS A AND B IF THE TRS PMR IS INSTALLED IN A BANK ALONG WITH ONE OR SEVERAL TRS 37X.

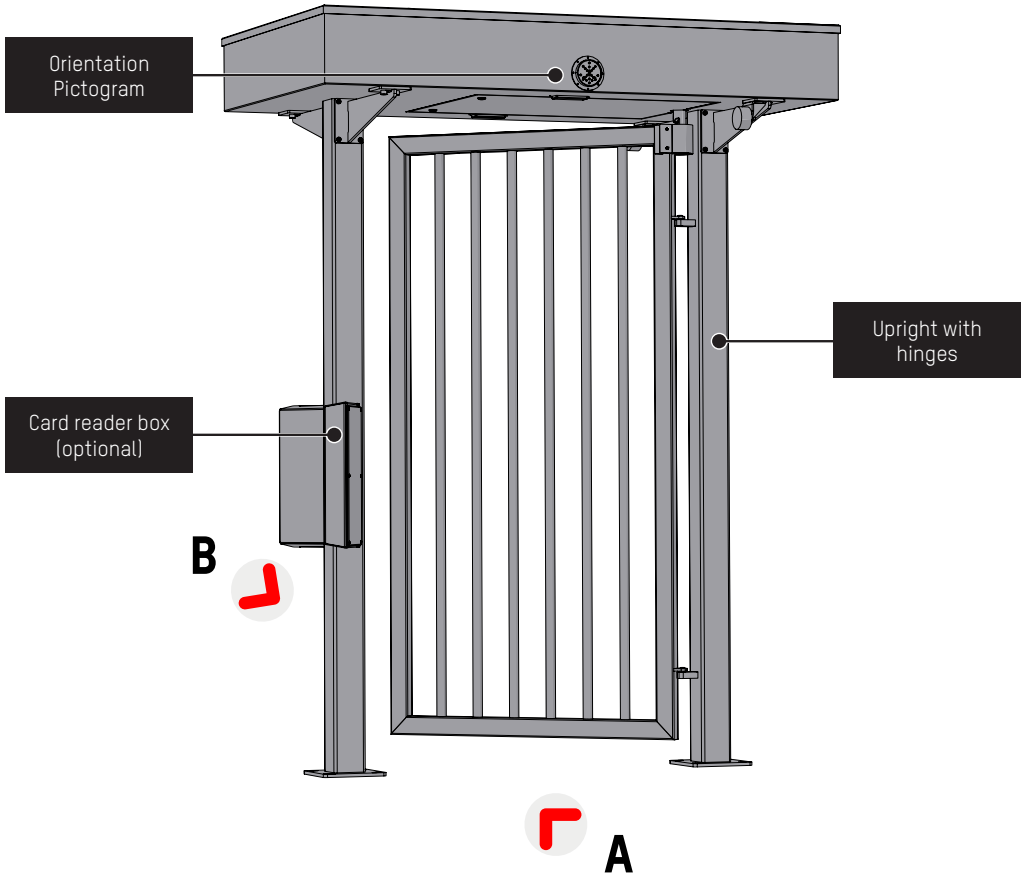


Fig. 5 - Conventions for directions A and B

The TRS PMR door can be configured in **three modes of operation, for each direction of passage**.

Some of these have an impact on the mounting of the kinematic assembly in the factory, so the desired configuration must be specified when the product is ordered.

MODE	DESCRIPTION	COMMENT
3	Permanently locked access free when switched off.	Presence of a lock and of an electromagnet.
4	Access electrically controlled and locked when switched off.	Presence of a lock and of an electromagnet.
5	Access electrically controlled and free when switched off.	Presence of a lock and of an electromagnet.

Therefore, for example, A5/B5 equipment will be electrically controlled in both directions of passage. This is in fact the default factory configuration if nothing is specified in the customer order.

It should be noted that no detection system is provided on this type of device. Once the door is open, there is therefore no way to guarantee a single passage. The door closes on its own, either by the action of a spring when it is no longer held in the open position by the user, or by motorisation after delay.

5.3. TECHNICAL FEATURES

TYPE	FEATURE	VALUE	
Electrical	Power supply	120 - 230 V Single-phase 50/60 Hz	
	Control circuit	24 VDC	
Consumption	At rest, without heating	30 W	
	Moving, without heating	60 W.	
Passage flow	Depending on card reader response time	Up to 20 passages/minute	
Environmental	Operating T°	-10°C to +50°C	
	Ingress protection rating	IP43	
	Max. relative humidity	95%, without condensation	
Weight	Net weight without option and without packaging	**Manual version**	**Motorised version**
		207.4 kg	220 kg
MCBF	Mean cycles between failures	1,000,000 cycles, if servicing recommendations are followed	
MTTR	Mean time to repair	20 minutes	
CE	Conforms to CE standards		

5.4. LOCATION OF COMPONENTS

5.4.1. EXTERNAL COMPONENTS

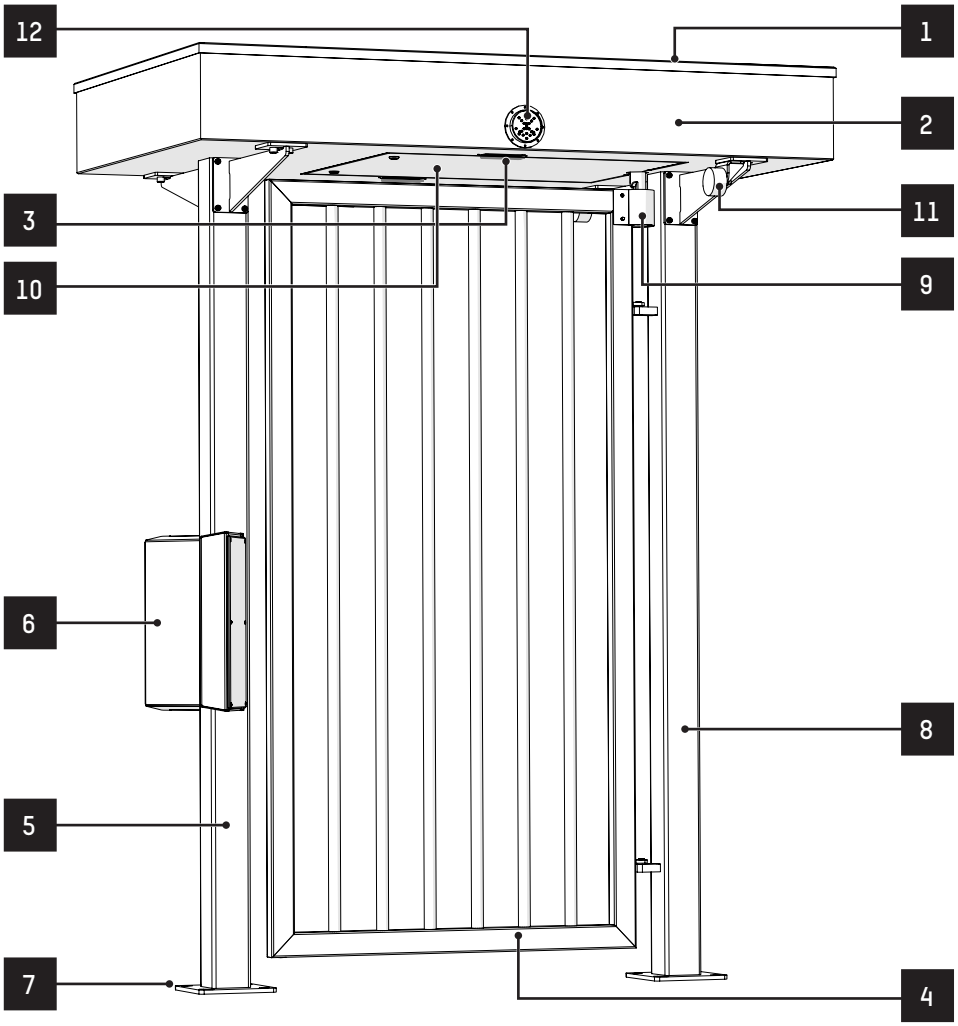


Fig. 6 - External components

ITEM	ITEM NAME
1	Head unit roof
2	Head unit containing the mechanical assembly, the motor (*) and control logic
3	LED lighting
4	Door
5	Left upright
6	Box for Card Reader Integration (*)
7	Floor mounting plate
8	Straight upright
9	Door Rotation Axle Protective Cover
10	Access door to the mechanism and to the control logic
11	Position stop (1 per direction of passage)
12	Orientation Pictogram

(*) Available as an option.

5.4.2. INTERNAL COMPONENTS

5.4.2.1. MANUAL VERSION

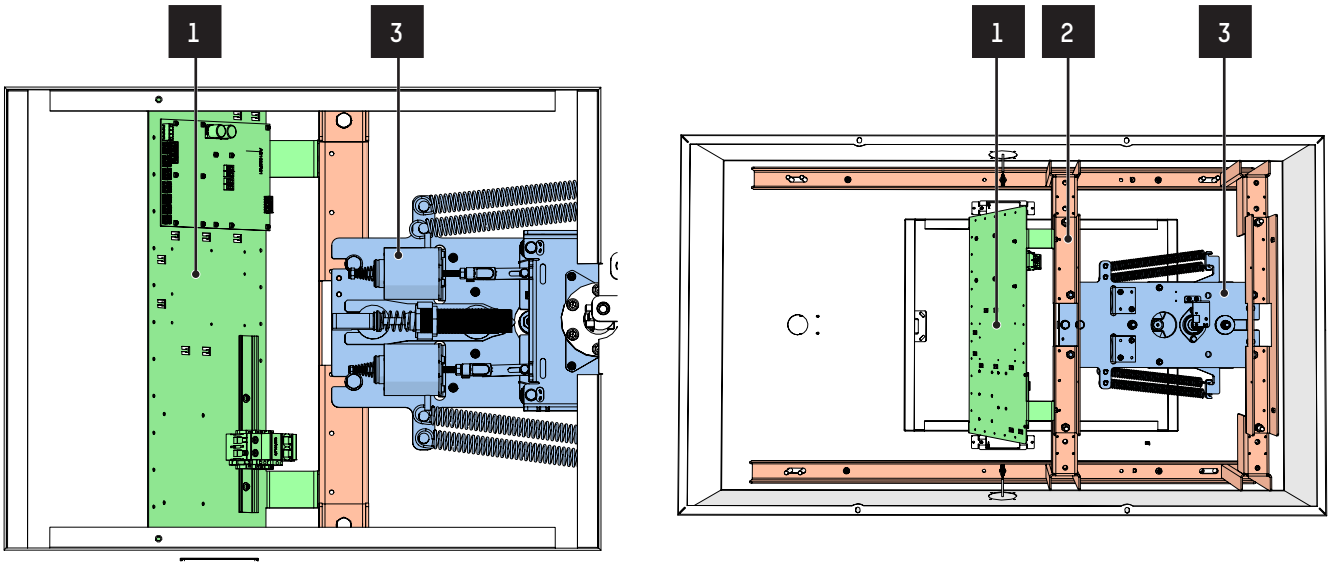


Fig. 7 - Internal components - manual version

5.4.2.2. MOTORISED VERSION

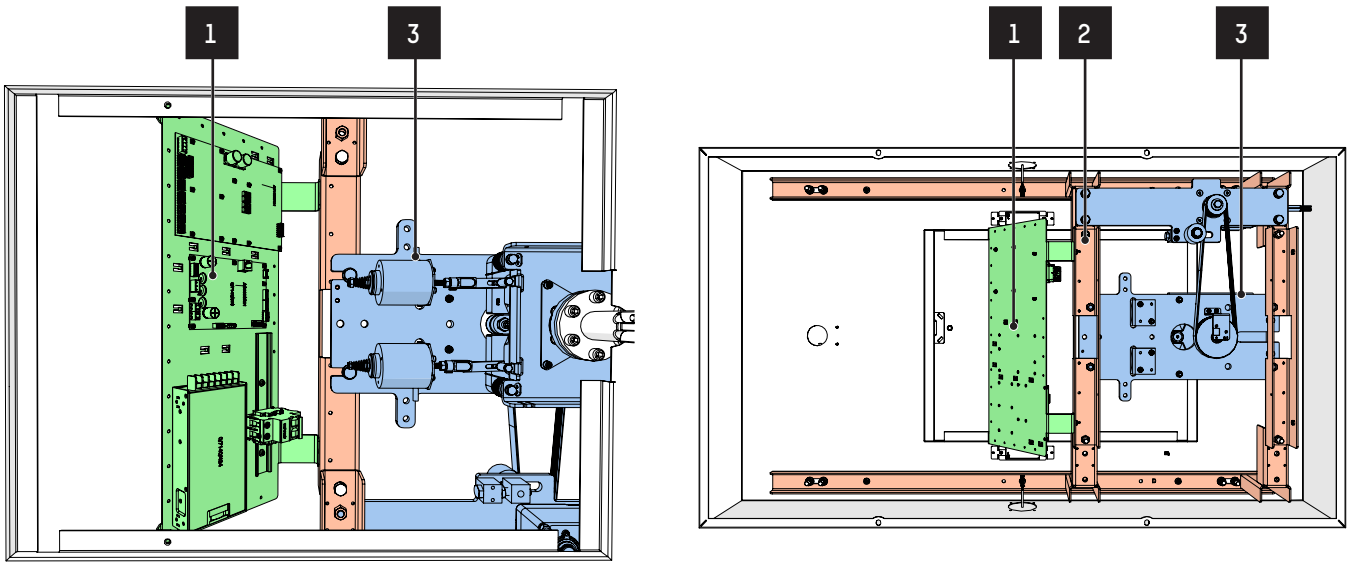


Fig. 8 - Internal components - motorised version

ITEM	ITEM NAME
1	Electronic logic board
2	Mechanical assembly frame
3	Mechanical assembly

5.4.3. ELECTRICAL/ELECTRONIC COMPONENTS

5.4.3.1. MANUAL VERSION

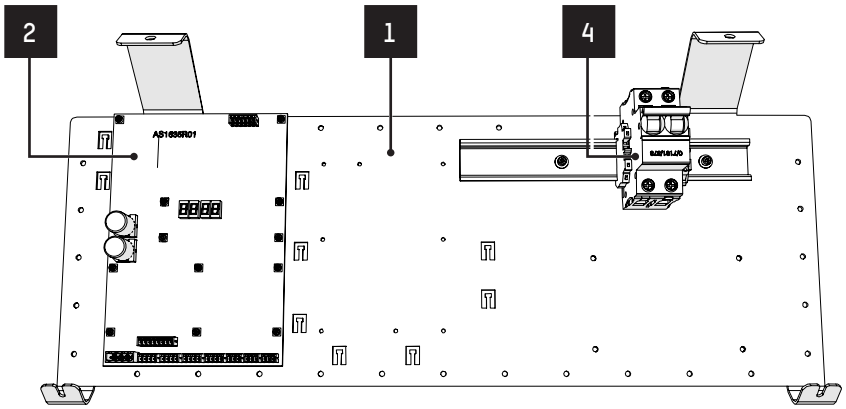


Fig. 9 - Detail of Electronic Logic Board - manual version

5.4.3.2. MOTORISED VERSION

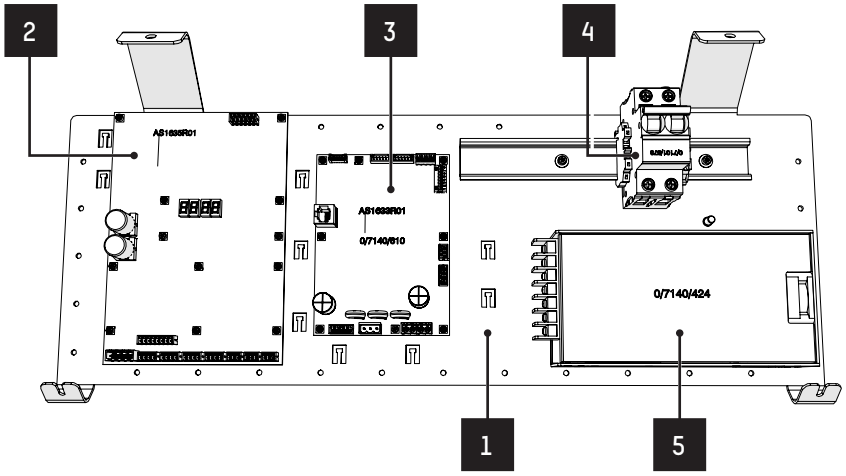


Fig. 10 - Detail of Electronic Logic Board - motorised version

ITEM	ITEM NAME
1	Electronic logic board
2	AS1635 electronic control board
3	AS1633 motor board
4	Circuit breaker
5	100-240 V 24 VDC power supply

6. OPERATION

6.1. OPERATING PRINCIPLE (MODES 3 AND 5)

In this mode of operation, the obstacle is unlocked if there is a power failure, so that the facility can be evacuated.

1. At rest, the electromagnet (**A**) is energised and its connecting rod (**B**) compresses the spring (**C**) to push the bolt (**D**) into the position where it locks the roller (**F**).
2. When a passage is authorised (by a validator, not supplied: card reader, remote control console, etc.), the power supply to the electromagnet is cut off by the control logic, allowing the release spring (**C**) to pull the bolt (**B**) backwards via the connecting rod (**D**), which unlocks the rotation of the moving door in one direction. In controlled mode, the second lock prevents rotation in the other direction.

6.1.1. FOR THE MANUAL TRS PMR DOOR VERSION

The user pushes on the mobile obstacle, which activates the rotor (**E**), in the clockwise direction in this example but the principle is the same in the other direction because of the symmetry of the mechanical assembly.

- During this movement, the roller located at 90° to roller (**F**) pushes on the compensating arm and thus tensions the four release springs (**H**) that are attached to it.
- When there is no more pressure on the mobile obstacle, it returns to its rest position as a result of the action of the four release springs (**H**). This closing movement is slowed by the action of the shock absorber (**N**) and of the pin visible underneath the shock absorber, which comes into contact with roller (**F**) as the axle rotates.
- The proximity sensor (**J**) detects that the shock absorber has returned to its rest position (meaning that the door has closed completely); it sends the information to the control logic which energises the electromagnet, locking the door again.

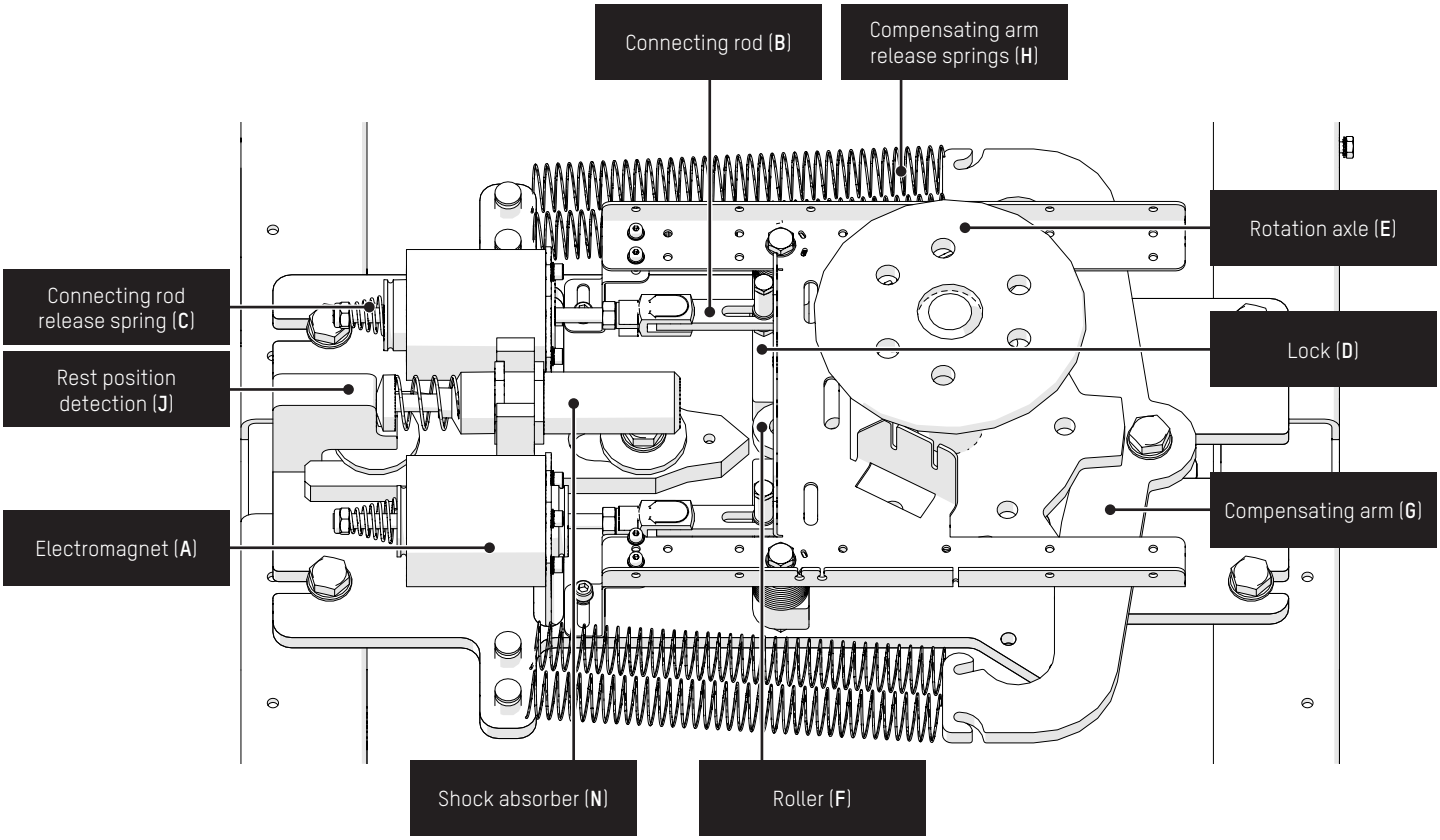


Fig. 11 - Mechanical assembly of the manual TRS PMR door

6.1.2. FOR THE MOTORISED TRS PMR DOOR VERSION

At the end of the first steps in chapitre 6.1, the control logic sends the door opening command to the AS1633 motor board that operates the motor (**G**).

- Motor movement is transmitted (**G**) to the rotating axle (**E**) using a pulley/belt system.
- The tensioner (**H**) ensures good tension on the belt and thus avoids any slippage of the latter.
- The position sensor (**I**) makes it possible to know the position of the door at any time allowing optimal and safe management.
- After the passage delay, the door closes automatically.

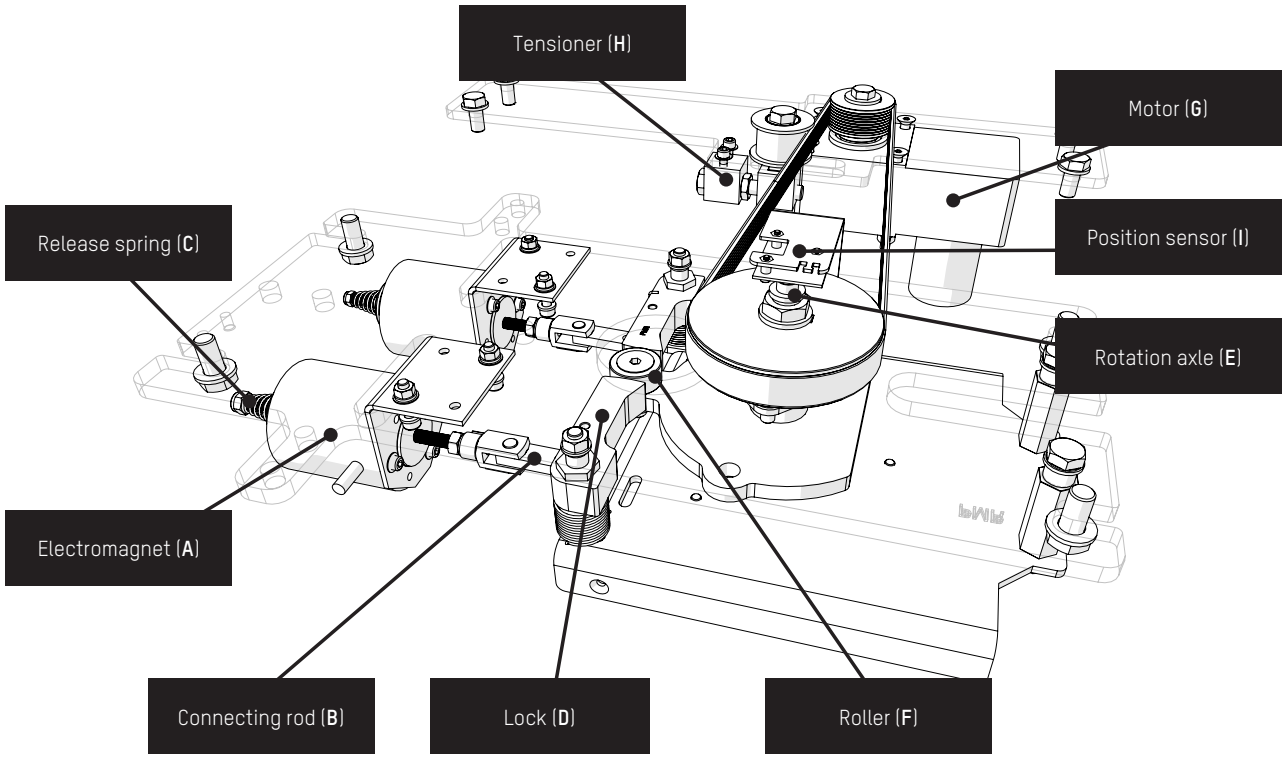


Fig. 12 - Mechanical assembly of the motorised TRS PMR door

6.2. OPERATING PRINCIPLE (MODE 4)

In this mode of operation, the obstacle is locked if there is a power failure.

- The operating logic of the electromagnet is therefore reversed (this setting can be accessed in the control logic management). With the TRS PMR powered on and in a resting position, the electromagnet is not powered. In this configuration the spring (**C**) is placed on the side of the connecting rod (**B**). When switched off, it therefore applies pressure to the bolt, preventing any rotation of the axle.
- When a passage is authorised, the control logic energises the electromagnet, which unlocks the passage in the corresponding direction.
- The other features are identical to the previous mode.

6.3. MODE OF OPERATION WHEN SWITCHED OFF

When switched off, the equipment can be configured in unlocked mode (allowing evacuation of the site) or in locked mode. These are modes 3, 4 or 5 as described in chapitre 5.2, page 10. This setting depends on the physical orientation of the electromagnet coil, because a release spring is attached to its axle. Control of the electromagnets will therefore be different in each case and a configuration parameter is provided in the control logic memory. Switching from one mode of operation to another is described in chapitre 9.1, page 44.

6.4. MODE OF OPERATION IN THE DIRECTIONS OF PASSAGE

Except in the event of a technical fault or evacuation, the mode of operation can be configured separately in both directions of passage:

- **Free**: All pedestrians can go through in the corresponding direction.
- **Controlled**: Only pedestrians with a pass (via a card reader or an external contact) can go through in the corresponding direction. In this mode, infringements are detected.
- **Prohibited**: No pedestrians can go through in the corresponding direction.

6.5. CARD READER MODE

6.5.1. PULSE MODE

One-second pulse: Opening in the A/B direction. A brief one-second pulse on the card reader triggers opening in the defined direction, either A or B. This function is particularly useful for quick and specific access, enabling precise control of the opening direction.

6.5.2. MAINTAINED MODE

Contact maintained for at least two seconds: Free mode. If the user maintains contact with the card reader for at least two seconds, the system goes into "free mode". In this mode, as long as the contact is maintained, opening remains activated, offering maximum flexibility for situations where extended access is required. This function is ideal for frequent passages or for unrestricted access during a given period.

6.5.3. COMBINED MODE

The combined mode offers flexible use through two separate functions (pulse mode and maintained mode) based on the duration of the pulse applied to the card reader.

These two options thus offer adaptability to different access needs. Combined mode makes it easy to switch between momentary access control and free opening, depending on the situation and the user's requirements.

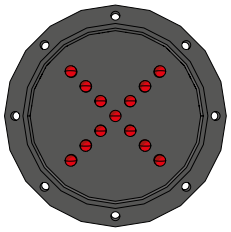
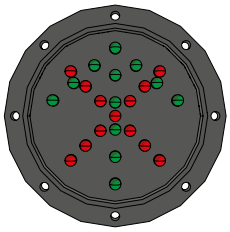
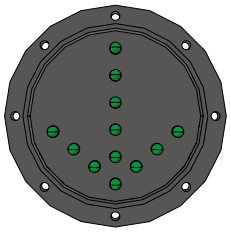
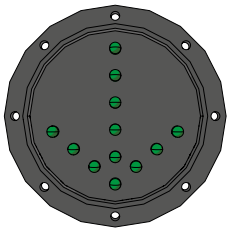
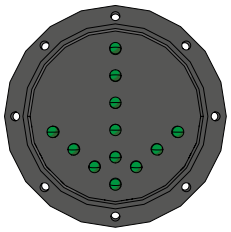
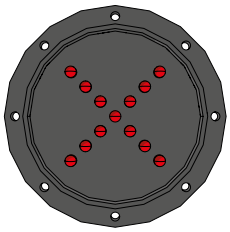
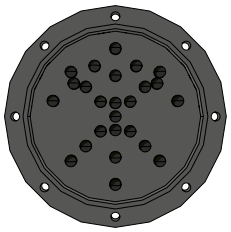
6.6. ILLUMINATED SIGNAGE

The pictograms built into the head unit can function in the two modes described below, depending on how they are connected and set up in the control logic.

6.6.1. ORIENTATION PICTOGRAMS

Orientation pictograms indicate the status of the lane and provide good visibility from a distance to ensure high through-passage.

The factory configuration provides the following colour conventions depending on the status of the TRS 370:

ORIENTATION PICTOGRAMS	MEANING	ORIENTATION PICTOGRAMS	MEANING
 Red "X"	**In both directions:** ⇨ Out of Service Mode	 Red "X" + Green arrow	**In both directions:** ⇨ Maintenance Mode
 Green arrow	⇨ Free mode (for each direction of passage)	 Green arrow	⇨ Controlled Mode: awaiting validation (for each direction of passage) ⇨ Controlled Mode: with authorised passage (for each direction of passage) ⇨ Controlled Mode: without right to request passage (for each direction of passage)
 Flashing green arrow	⇨ Evacuation Mode	 Red "X"	⇨ Prohibited Mode (for each direction of passage)
 OFF	⇨ Power Off ⇨ Initialisation Mode		

6.6.2. FUNCTION PICTOGRAMS

The function pictograms show users the functional status of the passageway **(for each direction):** passage authorised or not.

The factory configuration provides the following colour conventions depending on the status of the TRS 370:

<table>
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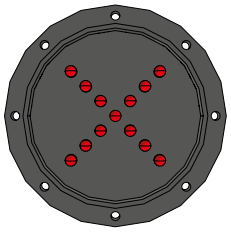
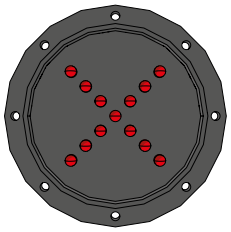
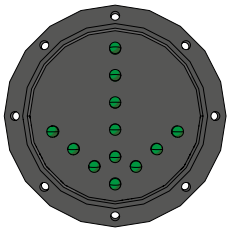
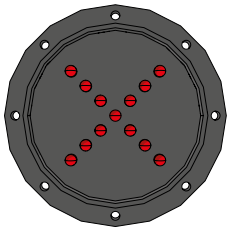
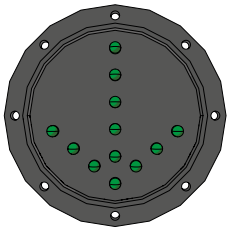
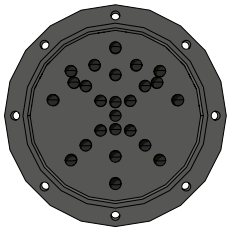
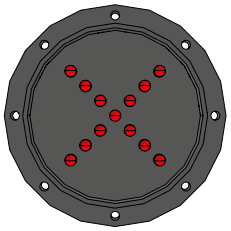
<tr><td> 
Red “X”</td><td colspan="4">⇨ Passage prohibited</td></tr>
<tr><td colspan="5">⇨ FREE MODE:</td></tr>
<tr><td> 
Red “X”</td><td>⇨ Passage prohibited
if passage in the opposite direction using a card reader or external contact</td><td>OTHER-WISE</td><td> 
Green arrow</td><td>⇨ Passage authorised</td></tr>
<tr><td colspan="5">⇨ CONTROLLED MODE:</td></tr>
<tr><td> 
Red “X”</td><td>⇨ Passage prohibited
if passage in the opposite direction</td><td></td><td> 
Green arrow</td><td>⇨ Passage authorised:
if validation of passage and no passage in progress in the opposite direction</td></tr>
<tr><td colspan="5">According to the status of the “Picto fct Rest” setting in the “Configuration” menu ⇨ “Pictogram” ⇨ “Controlled”:</td></tr>
<tr><td> 
OFF</td><td>At rest
⇨ Pictogram switched off</td><td>OR</td><td> 
Red “X”</td><td>At rest
⇨ Passage prohibited</td></tr>
</table>

6.7. BOX FOR CARD READER INTEGRATION (OPTIONAL)

An aluminium card reader box attached to the TRS upright is available as an option. The front panel is made of Trespa® and the assembly is watertight due to the inclusion of gaskets.

If the door opening is controlled in both directions, this type of box can be mounted in both directions A and B. Three holes are drilled into each side of the upright for mounting the box and routing the cables. If the equipment is not fitted with boxes, caps are inserted to ensure that the assembly is watertight.

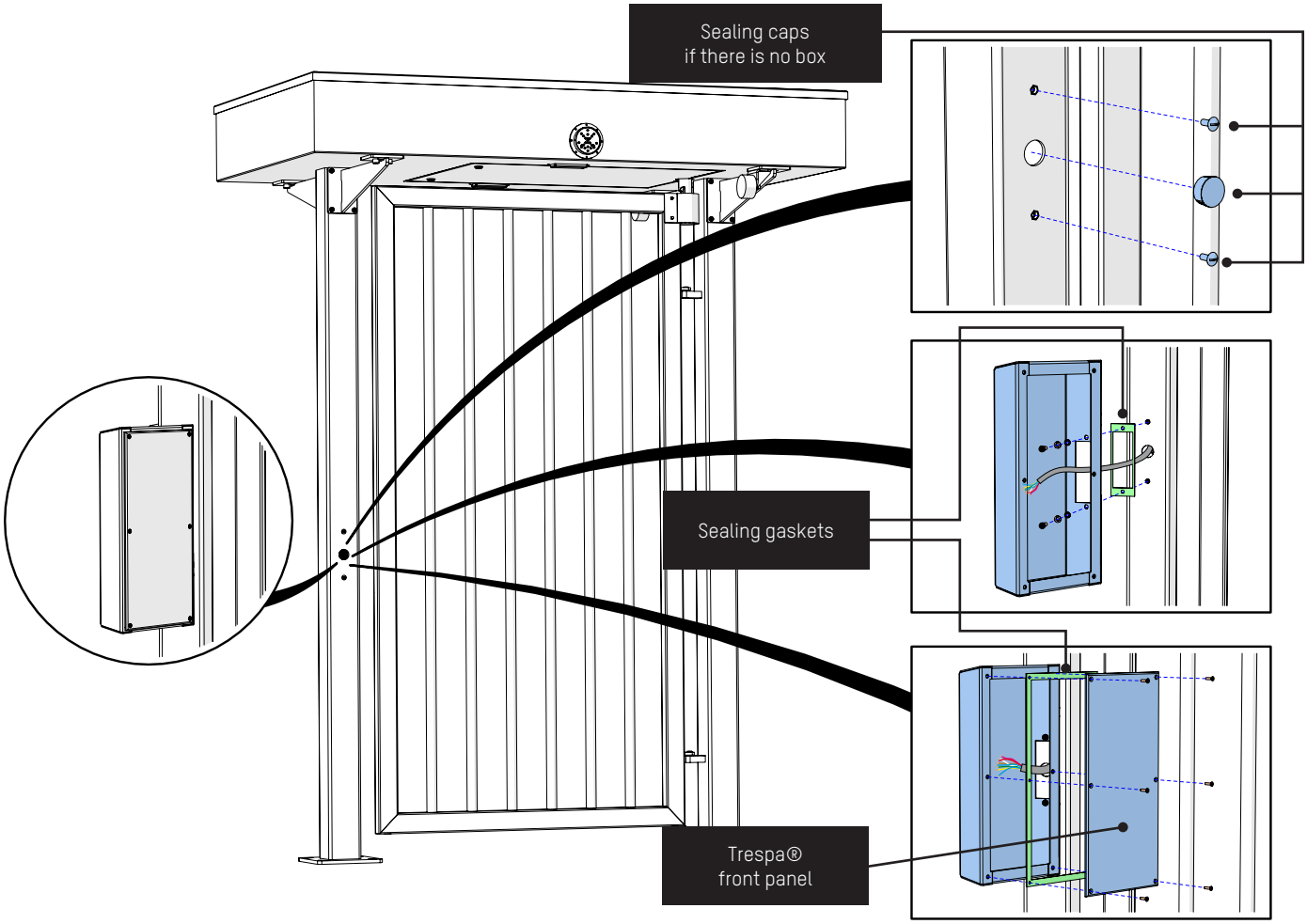
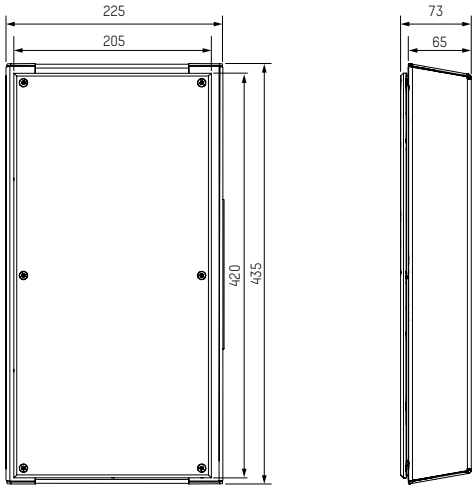


Fig. 13 - Box for Card Reader Integration

6.7.1. BOX DIMENSIONS FOR CARD READER INTEGRATION



Useful internal dimensions:
390 x 175 x 55 mm (H x L x P)

7. INSTALLATION

7.1. PACKAGING

For obvious space-saving reasons, the door is delivered unassembled in several sub-assemblies:

- The right and left uprights.
- The head unit with roof and access panel containing the mechanical assembly, power supply and control logic.
- The door.
- The connecting gussets between the uprights and the Head Unit.
- The stops.
- Any optional equipment such as card reader boxes and/or canopies.
- Drilling template or fixing frame (To be specified in the order).
- Hardware and technical documentation.

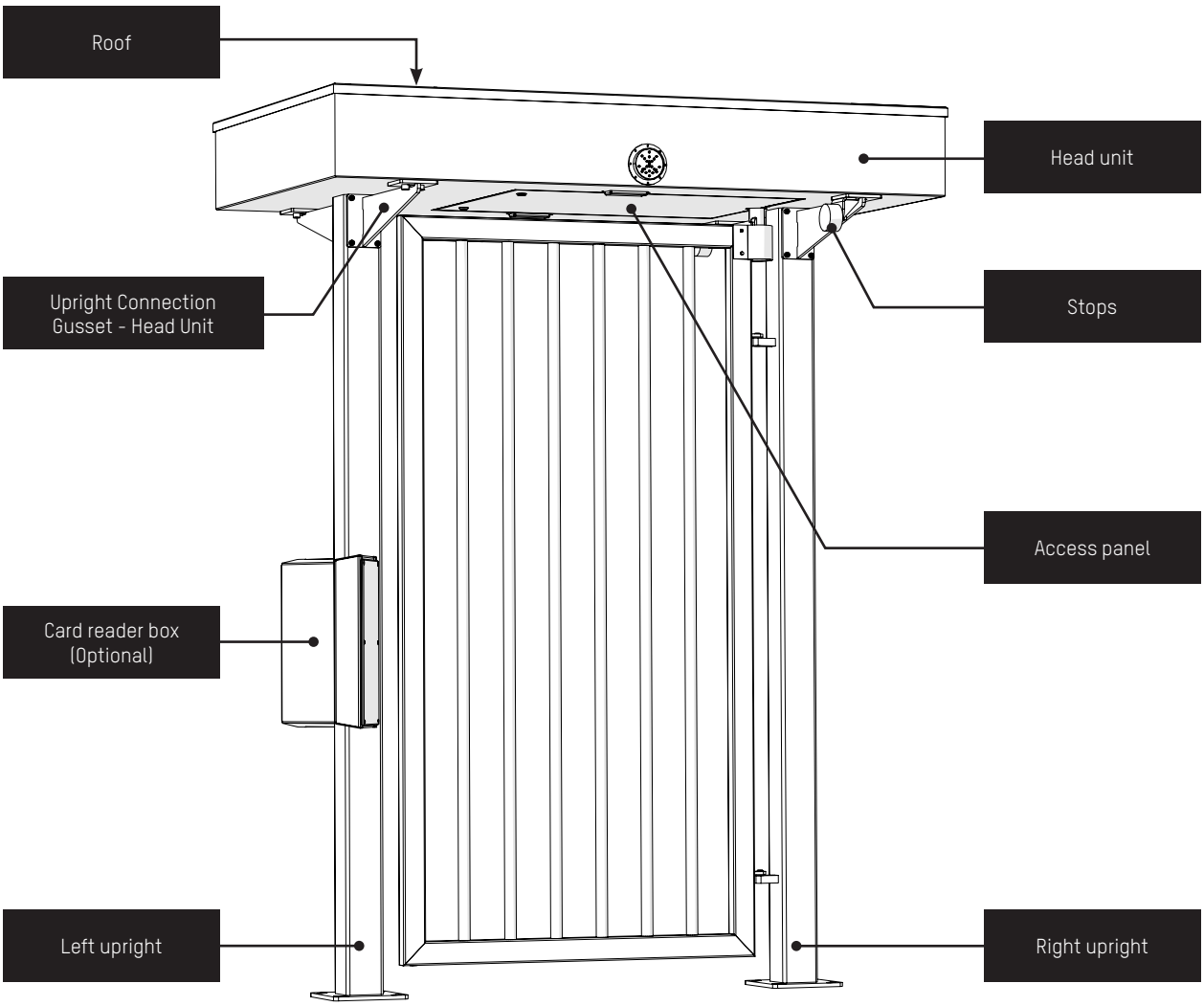


Fig. 14 - Sub-assemblies Included in the TRS PMR Package

7.2. UNPACKING

When you receive the equipment on site, please check that each item is in good condition and complete.

If, for any reason, damage occurred during transport, please make sure that this is recorded on the transport document and, if necessary, report the incident to **Automatic Systems**.

7.3. RECOMMENDED INSTALLATION TOOLS

- Forklift truck
- Ratchet spanner + extension + socket set
- Set of hexagonal keys (Allen keys)
- Electrical tools (screwdrivers, pliers, etc.)
- Set of open-end spanners
- Spirit level
- Percussion drill + Ø15 x 100 concrete drill bits
- Standard protective equipment: gloves, goggles, hard hat and safety shoes
- Straps/slings
- Protective materials (covers, packing cartons, etc.)
- Rubber mallet

7.4. SWITCHING THE EQUIPMENT ON AND OFF

AS SOON AS YOU OPEN THE HEAD UNIT, SWITCH OFF THE EQUIPMENT BY SHUTTING OFF THE MAIN CIRCUIT BREAKER LOCATED ON THE POWER SUPPLY BOARD.

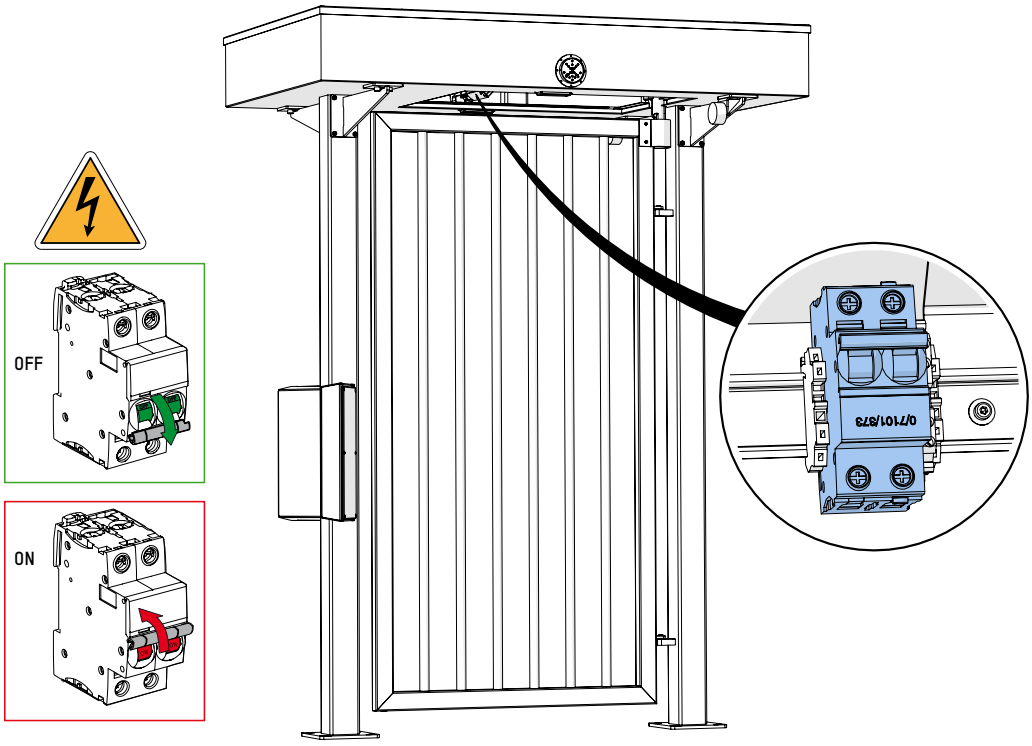


Fig. 15 - Location of Thermal Magnetic Switch

7.5. INSTALLATION DIAGRAM

The supply and data cables must come via the upright that is not equipped with hinge fasteners in accordance with the installation diagram shown below.

We recommend using a 3G2.5 mm² 230 V single-phase + earthing power cable (type XFVB recommended) and optional TPVF or LiYCY type control cables.

To avoid any issues with interference, we also recommend that the power and control cables are routed in the separate PVC conduits 25 mm in diameter.

To reach the connectors provided in the head unit, all cables must extend at least 3 m above the floor.

7.5.1. MOUNTING ON A FINISHED FLOOR

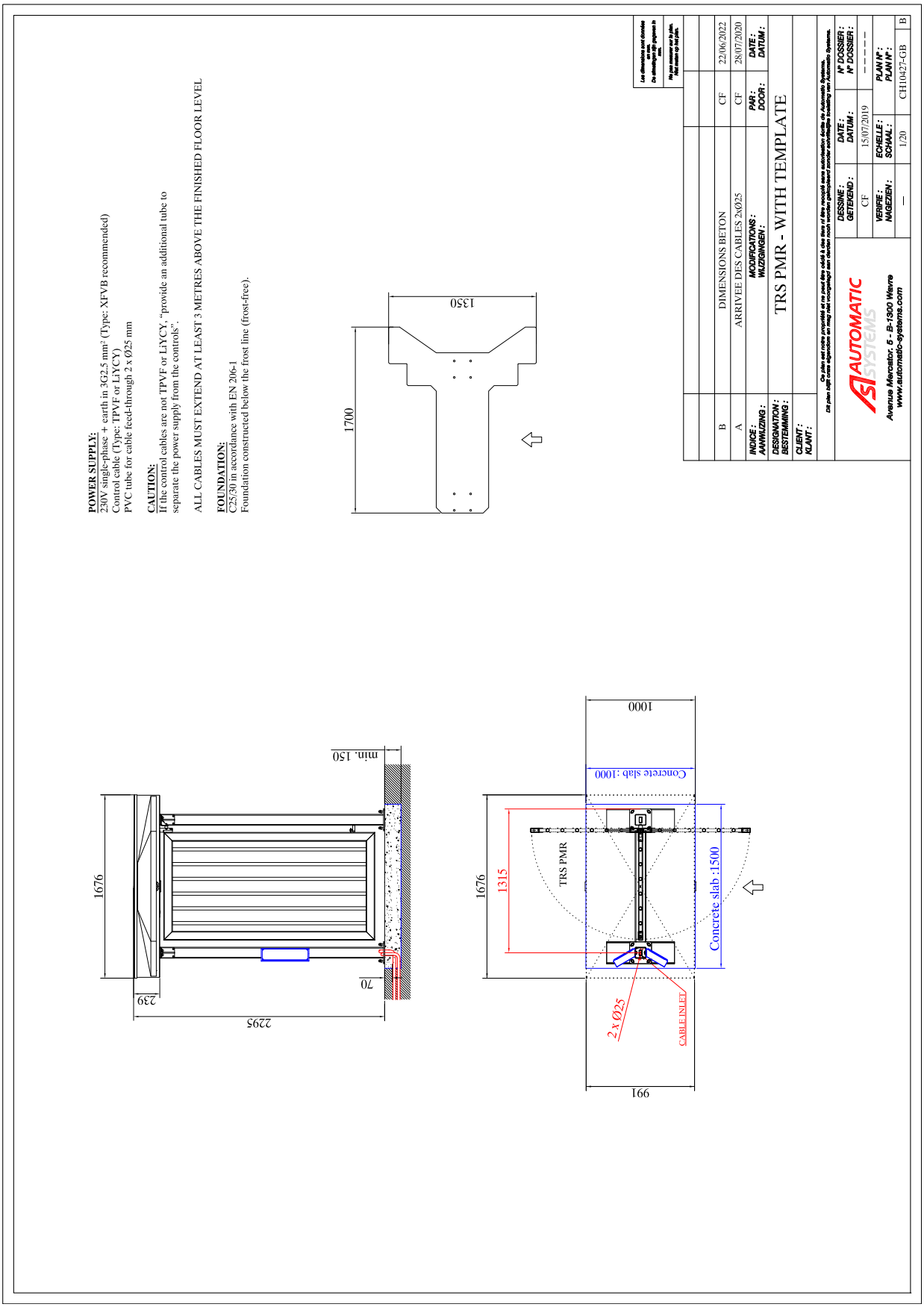


Fig. 16 - Installation Diagram - Mounting on a Finished Floor

7.5.2. MOUNTING ON A FIXING FRAME

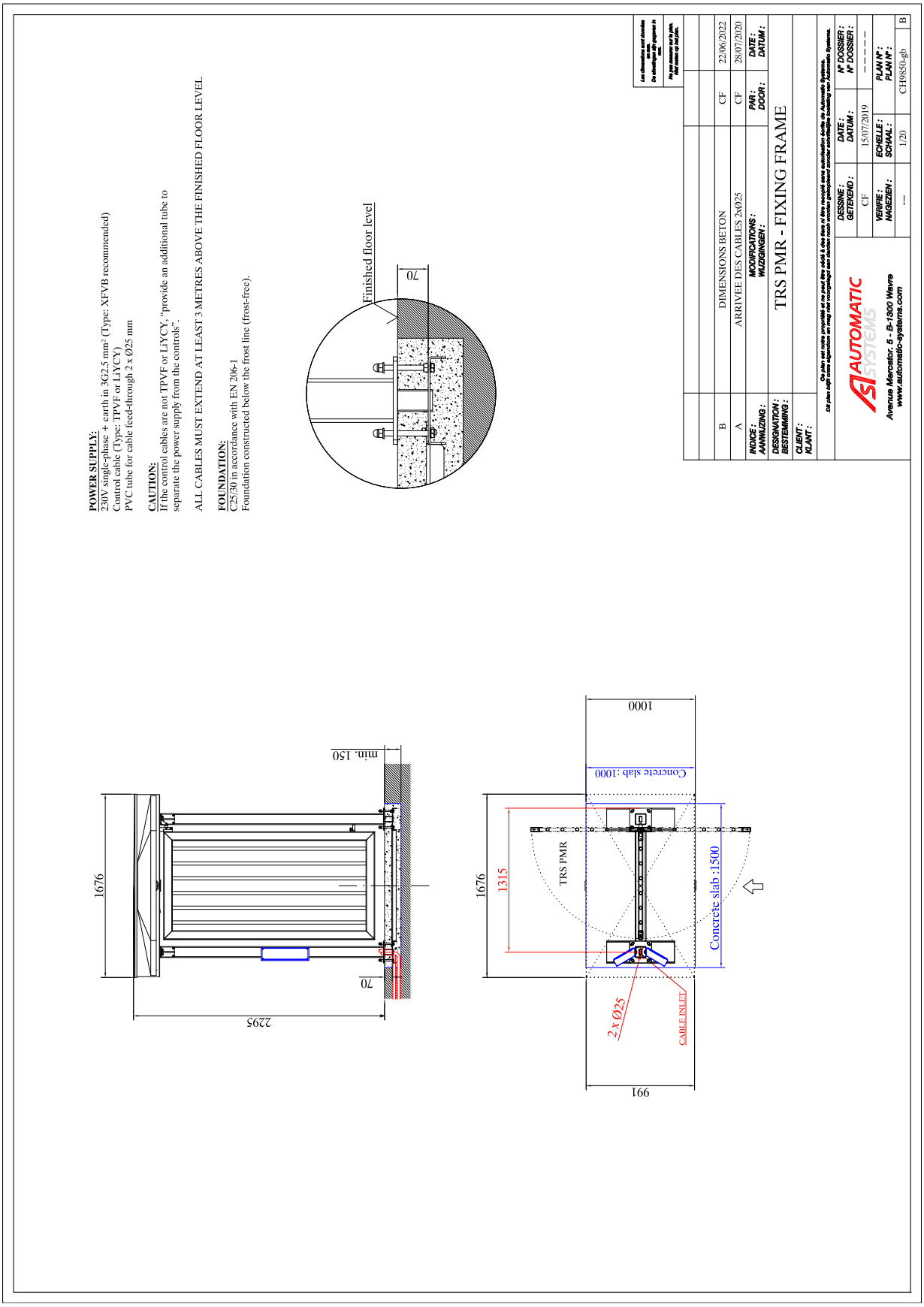


Fig. 17 - Installation Diagram - Mounting on a Fixing Frame

7.6. DRILLING TEMPLATE (STANDARD) OR FIXING FRAME (OPTIONAL)

There are two possible situations on site:

a. **The equipment is installed by drilling on a finished floor:** In this case, the use of a drilling template not only makes it possible to work accurately, but also to combine it with the drilling template for the TRS37X drums for battery installation.

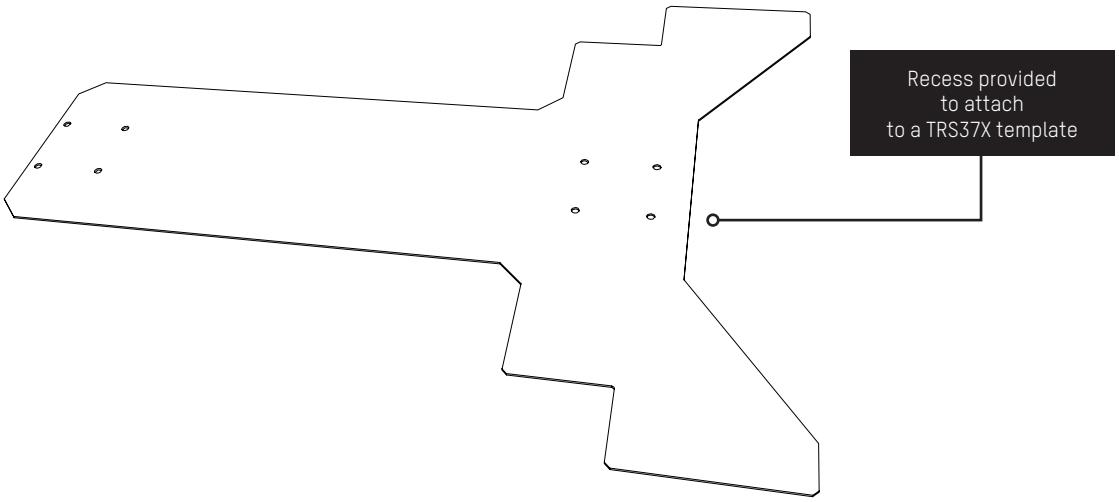


Fig. 18 - Drilling Template for Finished Floors (GAB-E-0020913)

b. **Use of a fixing frame (optional) cast in concrete:** In this case as well, a connection with a drum fixing frame is possible:

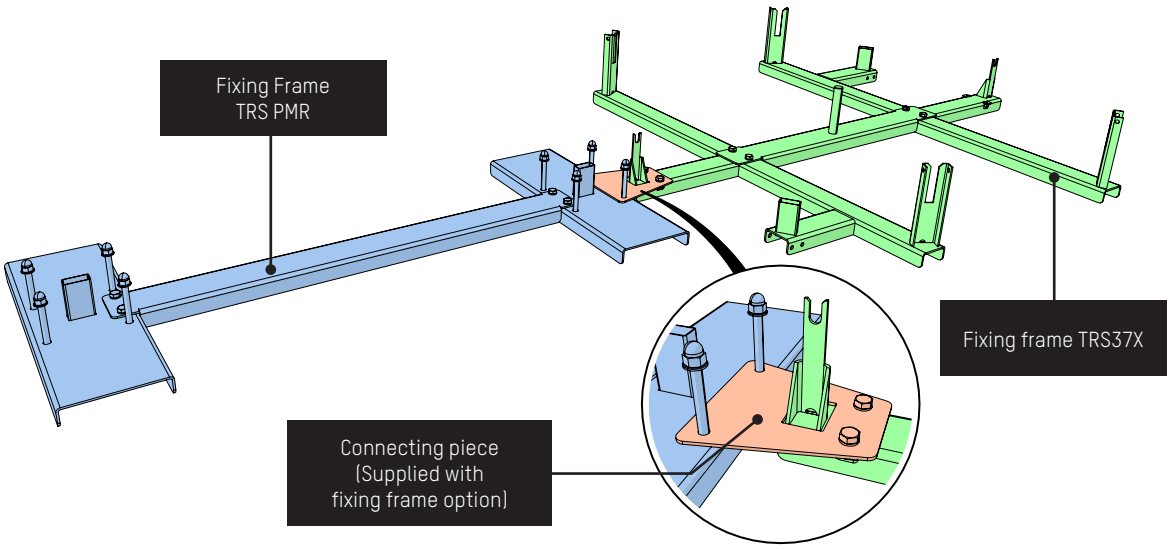


Fig. 19 - Optional Fixing Frame

7.7. PROCEDURE FOR INSTALLATION ON A FINISHED FLOOR

7.7.1. PREPARING FOR INSTALLATION ON A FINISHED FLOOR

1. Allow for the conduits (not supplied) for routing the cables for the power supply and any remote controls in the places shown on the installation diagram. Allow for 3 m of extra cable above the floor, as the connections to control circuit are made in the head unit.
2. Make sure that the floor on which the door is to be installed is flat (free of rough spots), perfectly level and made of standard concrete or another non-combustible material (strong enough to stiffen the whole).
3. As indicated in the installation diagram, mark the location of the drilling points using the template; the drilling points for each foot form a 150 x 150 mm square.

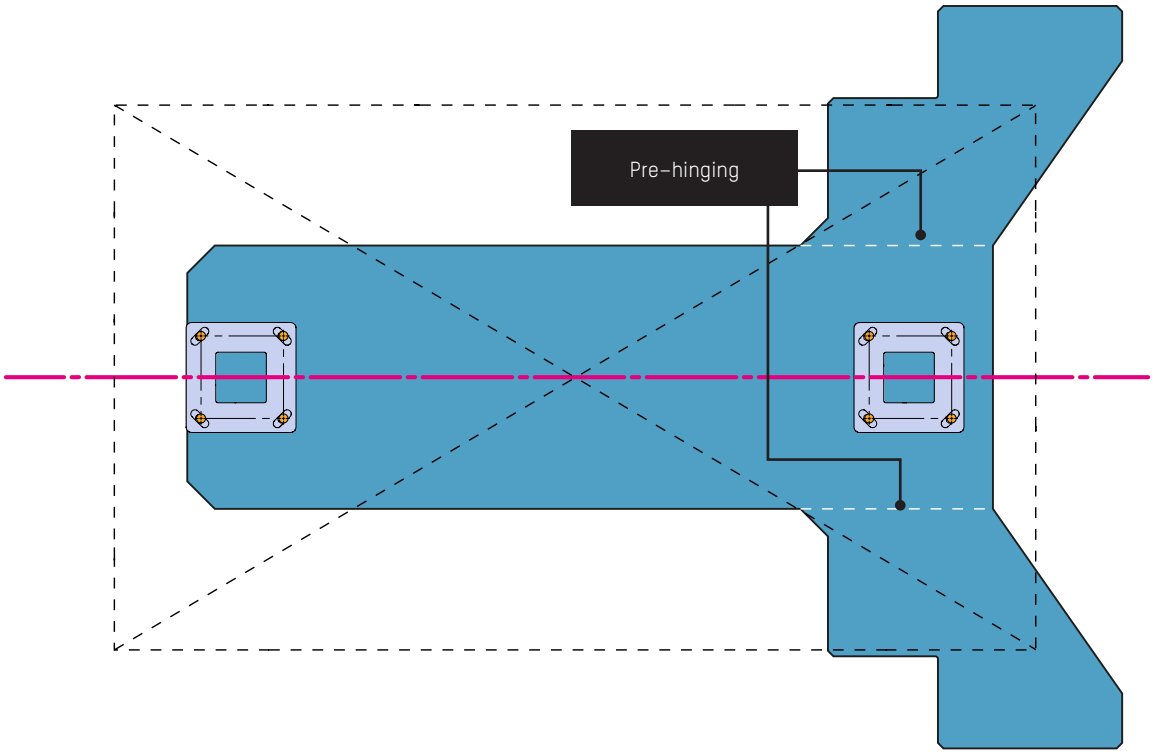


Fig. 20 - Drilling template (GAB-E-0020913) - Procedure

4. If using the expandable anchoring bolts (recommended type: model B15/30, P/N -/3413/000 or chemical) supplied by Automatic Systems, drill holes of Ø 15 mm and 85-mm deep.

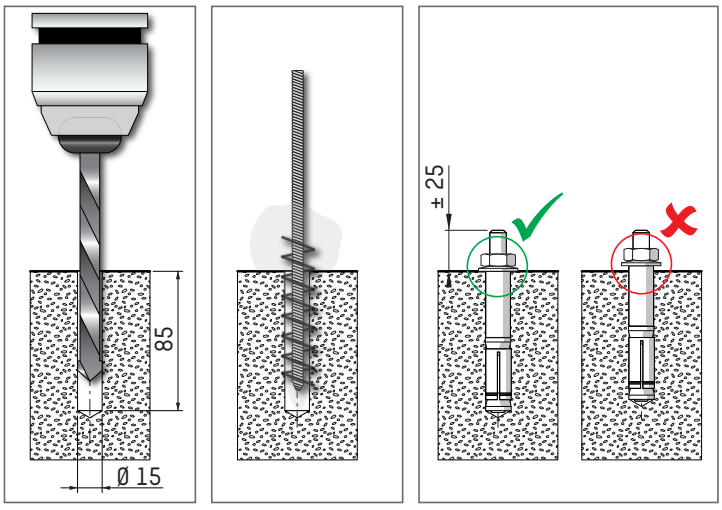


Fig. 21 - Recommended Bore for Expansion Bolt model B15/13 supplied by Automatic Systems

ALTHOUGH THE ANCHORING BOLT MODEL SUPPLIED BY AUTOMATIC SYSTEMS IS SUITABLE FOR MOST CONFIGURATIONS, IT IS ESSENTIAL TO ADAPT THE ATTACHMENT MEANS AND METHOD TO THE ENVIRONMENT AND THE CHARACTERISTICS OF THE FLOOR ON WHICH THE EQUIPMENT WILL BE PLACED AND TO HAVE THE WORK APPROVED BY A QUALIFIED ENGINEER.

CAUTION!
THE EQUIPMENT MUST BE CORRECTLY SECURED TO THE FLOOR BEFORE BEING MADE ACCESSIBLE TO USERS! AUTOMATIC SYSTEMS CANNOT BE HELD LIABLE FOR ACCIDENTS OR DAMAGE SHOULD THE EQUIPMENT BE IMPROPERLY SECURED TO THE FLOOR.

FOR EACH OF THE FOLLOWING STEPS, IT IS VERY IMPORTANT TO VERIFY THAT THE VARIOUS ITEMS OF EQUIPMENT ARE UP TO STANDARD. THIS IS ESSENTIAL FOR THEIR SMOOTH OPERATION AFTERWARDS!

To ensure that the various components are correctly fitted when assembling the equipment, we recommend that you do not tighten the fixing screws.
Tighten all fastenings securely once the assembly is complete and has been tested.

7.7.2. INSTALLING THE UPRIGHTS

1. Attach the two vertical uprights to the floor (**1**) checking their verticality on the eight anchor bolts (**2**) previously placed in the floor.
2. Do not forget to insert the power and control cables into the left upright (direction A ⇨ B) (upright without hinge support).

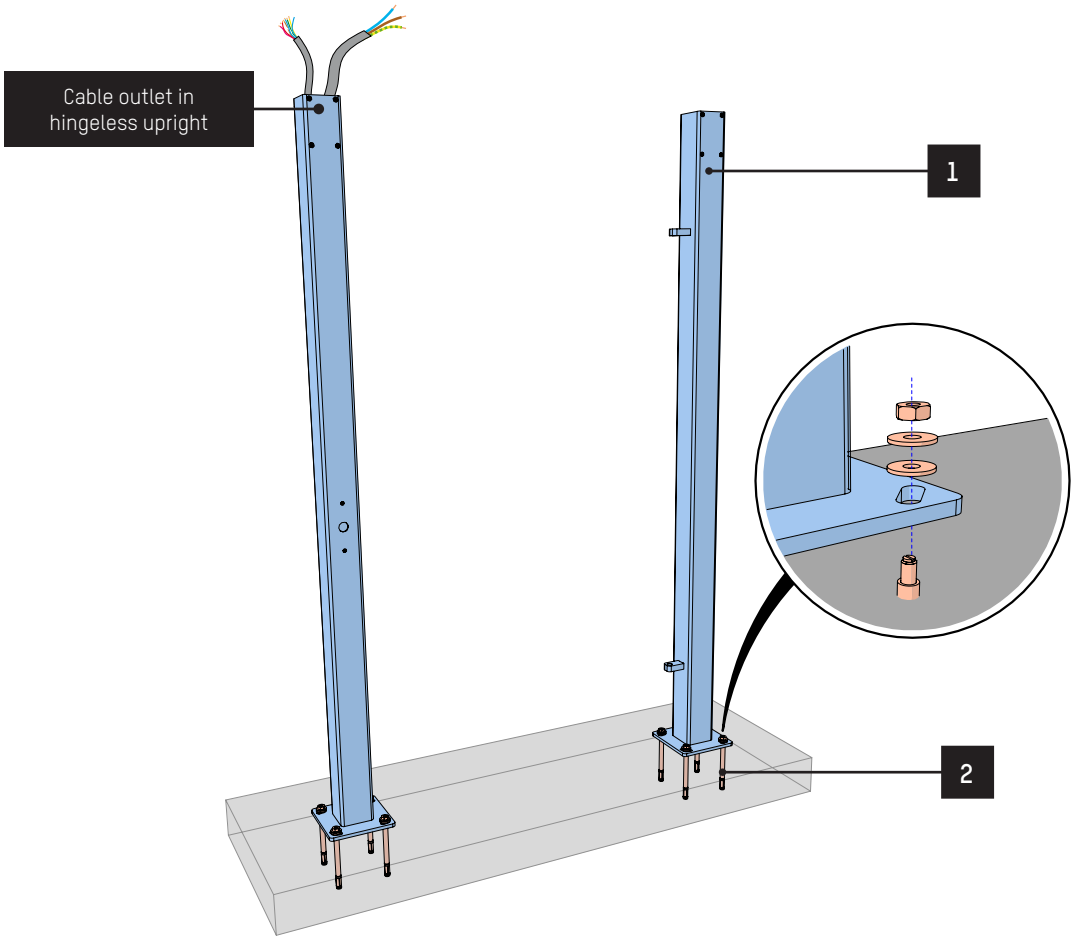


Fig. 22 - Installing the Uprights

7.7.3. INSTALLING THE UPRIGHTS CONNECTION GUSSETS - HEAD UNIT

1. Attach the four uprights connecting gussets - head unit (4x M8 screw x 25 stainless steel with cylindrical DIN 912 head + M8 DIN 125 stainless steel flat washers).

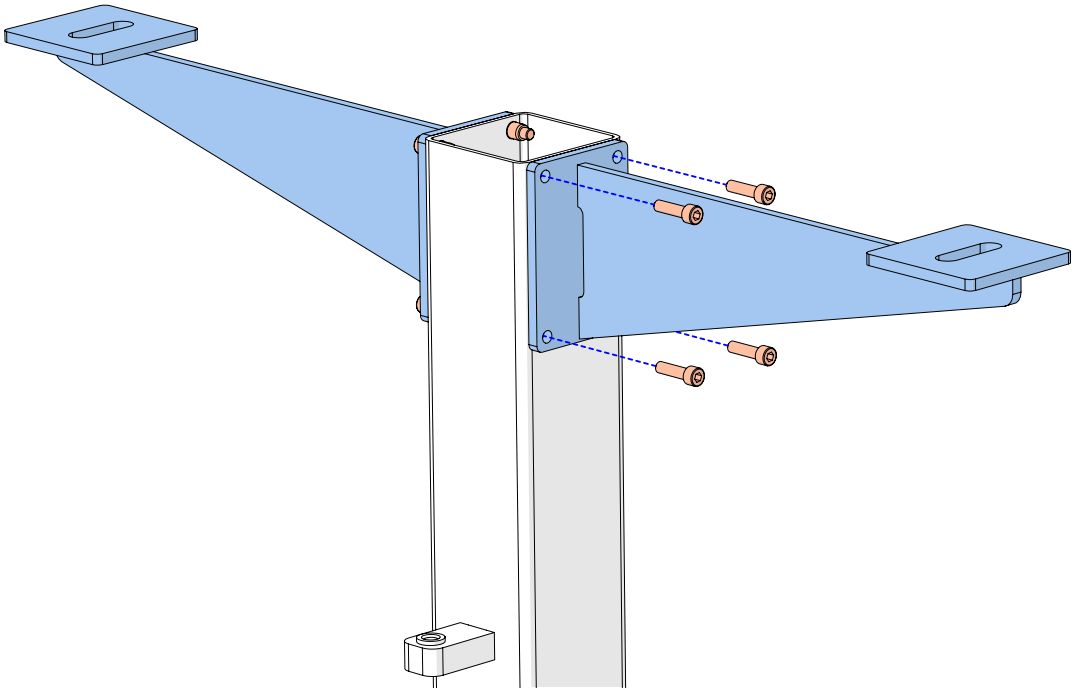


Fig. 23 - Installing the Uprights Connection Gussets - Head Unit

7.7.4. MOUNTING THE HEAD UNIT

AS THE UNIT IS ESPECIALLY HEAVY, IT MUST BE HANDLED BY AT LEAST TWO PEOPLE.

DO NOT TIGHTEN THE HEAD UNIT FIXING SCREWS! THESE WILL BE TIGHTENED ONCE THE DOOR AND SHAFT ARE ASSEMBLED.

1. Using a forklift, place the head unit (**A**) without the roof on the four gussets (**B**). Do not forget to insert the cables into the head unit.
2. The frame of the head unit is connected to each of the four gussets using two screws (**1**), two washers (**2**) and two nuts (**3**).
3. Two of them are also used to attach the two stops (**C**) limiting the final opening position of the door in each direction of passage.

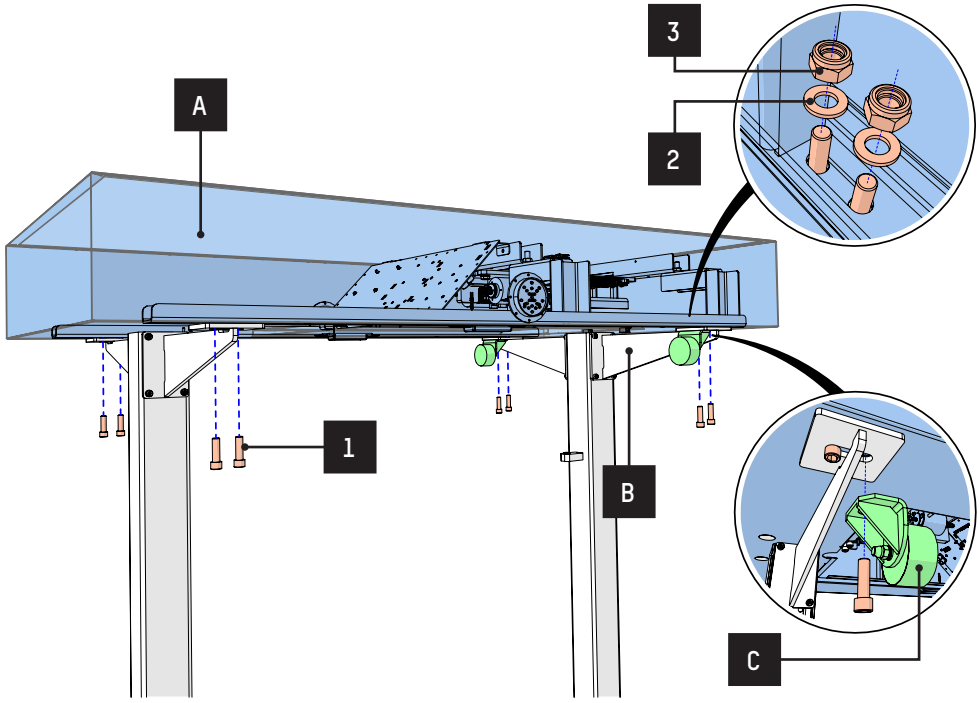


Fig. 24 - Installing the Uprights Connection Gussets - Head Unit

ITEM	ITEM NAME	QTY.
A	Head unit	1
B	Upright Connection Gusset - Head Unit	4
C	Assembly door stop support	2
1	IX Cylindrical head hexagon socket cap screw M12x40 DIN 912	8
2	ZN Flat washer M12 DIN 125	8
3	ZN nut H M12 DIN 985 NYLSTOP	8

7.7.5. FITTING THE ROTATING OBSTACLE

The intermediate bearing, attached to the turret by six **M10** bolts, must be removed in order to fit the door inside the two hinge supports of the left upright. If the intermediate bearing has been fixed at the factory on its axle, it should be removed temporarily.

1. If not already done, remove the access panel to the logic and mechanics (lock closure).
2. Taking into account the weight of the rotating obstacle (**1**), check the rigidity of the assembly formed by the Head Unit and the two uprights.
3. Insert the obstacle into the two hinges of the right upright (**2**) and manually check if it rotates 90° in both directions, to the stop point. **Check the levelling in all directions!**

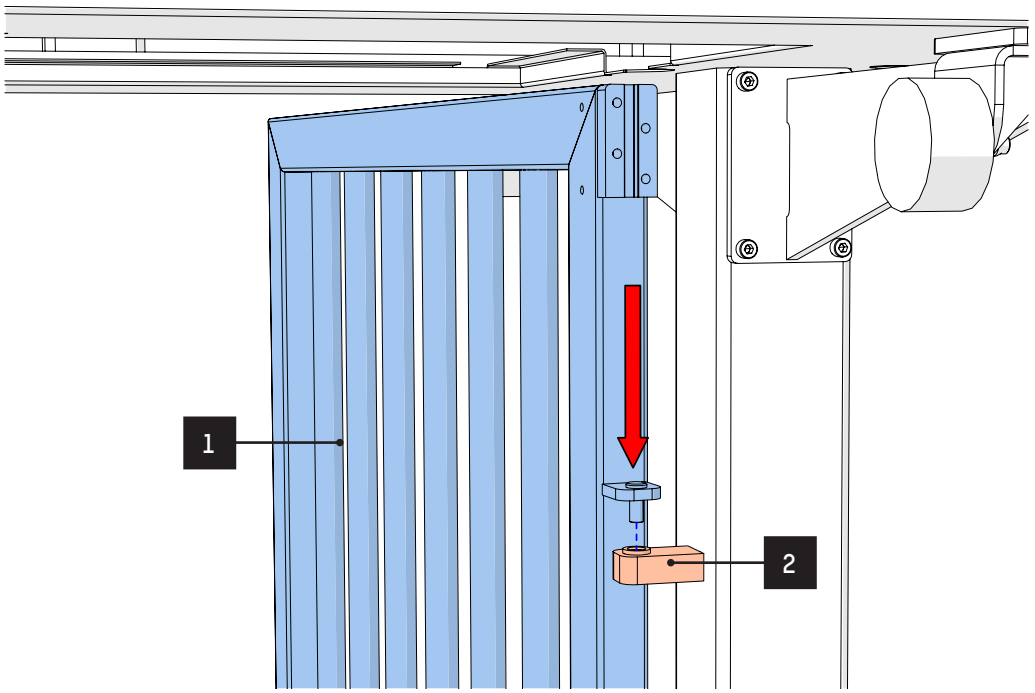


Fig. 25 - Installation of Door

4. While keeping the obstacle open, place the coupling flange (**2**) on the axle of the PMR rotor (**1**).

> The intermediate bearing flange is free-mounted. It can thus be adjusted from bottom to top to be able to correctly align the axle of the intermediate bearing with the door

5. Attach the "axle" part of the lower rotor (**3**) to the obstacle using the 4 screws (**6**).
6. Then attach the lower rotor (**3**) to the coupling flange (**2**) via M10 nuts (**4**) and screws (**5**).

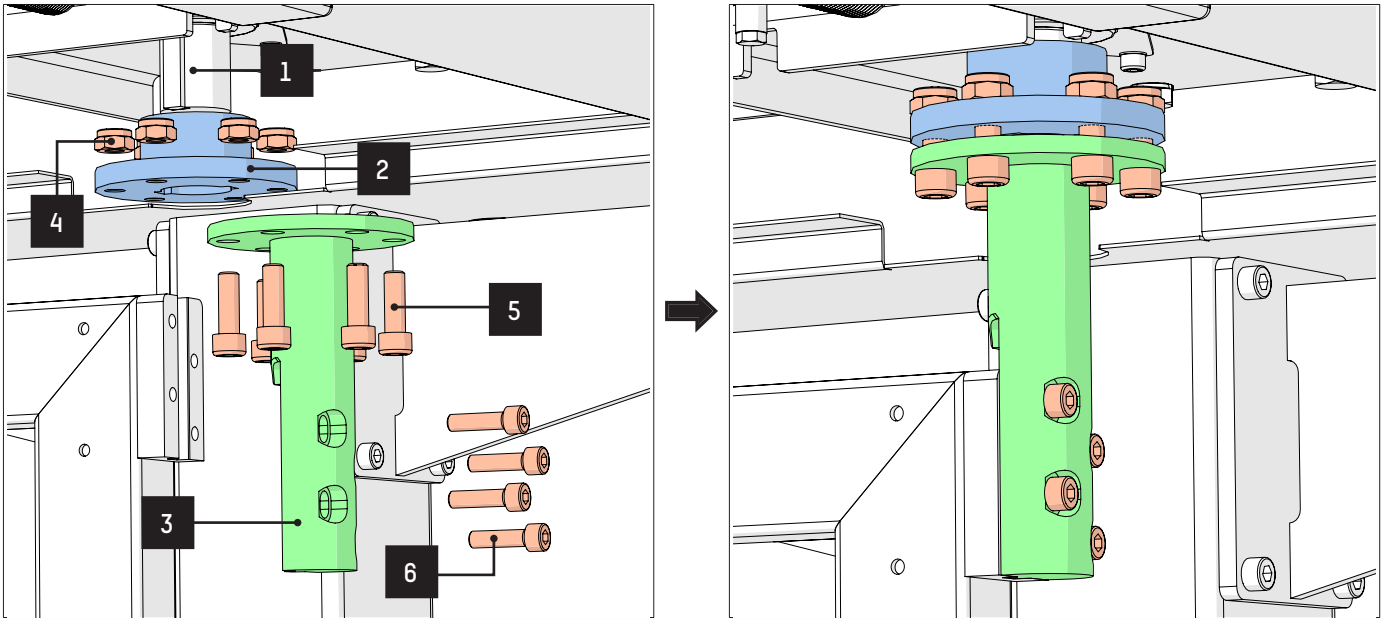


Fig. 26 - Coupling of the door to the Mechanical Axle

- Move the door a few times to check that everything is working properly.
- After positioning the head unit, tighten the shaft and lock the six screws (**5**).
- Check the levelling one last time and lock all mountings correctly (mechanics - head unit - obstacle).

ITEM	ITEM NAME	QTY.
1	PMR Rotor	1
2	Rigid coupling flange	1
3	Lower rotor	2
4	ZN nut H DIN 985 M10	6
5	Screw ZN DIN 912 TCA M10x30	6
6	Screw IX DIN 912 TCA M8x30	4

7.7.6. FITTING THE LOWER AXLE PROTECTIVE COVER

In order to avoid any risk of pinching at the lower rotor axle, the protective cover should be installed as follows:

1. Install the protective cover (**1**), bottom closed downwards, on the door frame, hinge side.
2. Slide the cover upward so that it covers the lower rotor axle.
3. Align the cover mounting holes with those located on the door frame.
4. Attach it using screws (**2**), washers (**3**) and cap bolts (**4**).

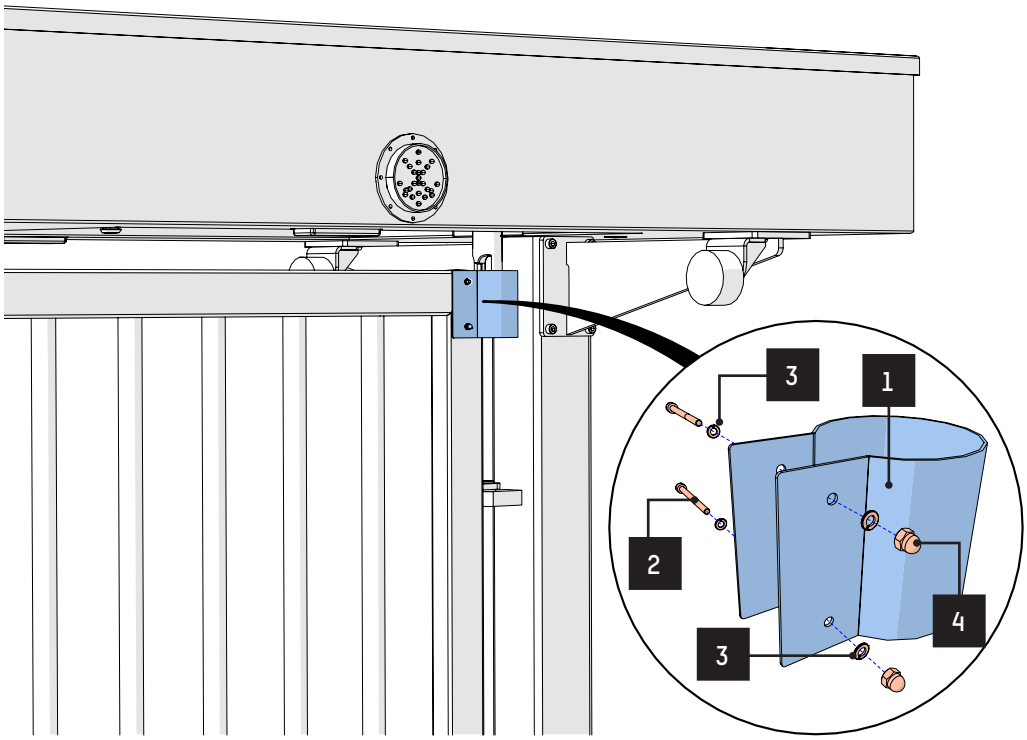


Fig. 27 - Installation of the protective cover

ITEM	ITEM NAME	QTY.
1	Lower axle protective cover	1
2	IX Cylindrical head hexagon socket cap screw DIN 912 M04x50	2
3	IX GROWER washer DIN 127 M04	4
4	IX Cap nut DIN 1587 M04	2

Installing the protective cover will be easier if the door is open at 90° and resting on the stop.

7.7.7. MOUNTING THE ROOF

As in the case of the TRS37x, the roof is mounted using four DIN 985 M6 nuts and DIN 9021 M6 washers.

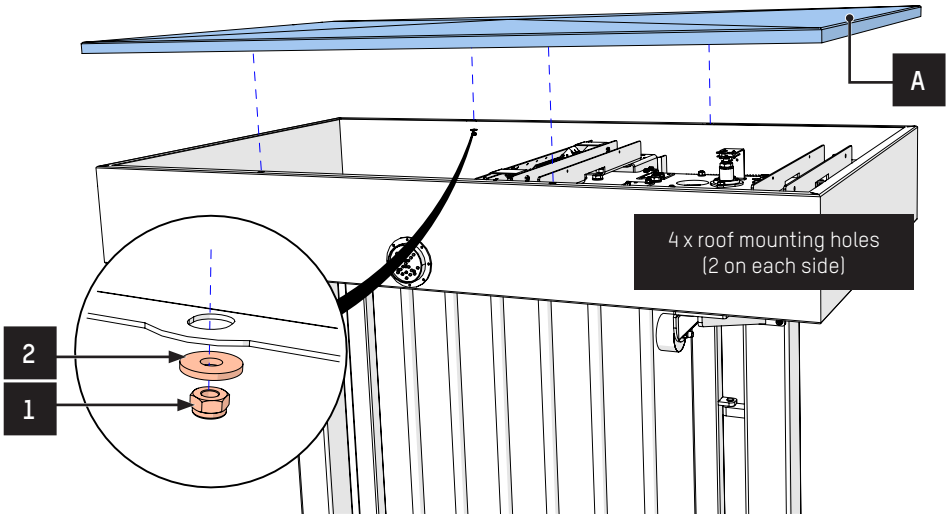


Fig. 28 - Mounting the Roof

ITEM	ITEM NAME	QTY.
A	Head unit roof	1
1	Lock nut DIN 985 M6	4
2	Large flat washer DIN 9021 M6	4

7.7.8. INSTALLING / REMOVING THE DOOR

Installing the door:

1. By aligning the rounded door recess with the axle of the mobile obstacle passage 900, engage the door in the recess provided for in the head unit and overlap the door hinge with the hinge of the head unit.
2. While pushing the door, tip it towards the unit so that it engages in the recess. Connect the grounding wire to the doors.
3. Once it is correctly positioned, turn the key clockwise 180° to lock the door.

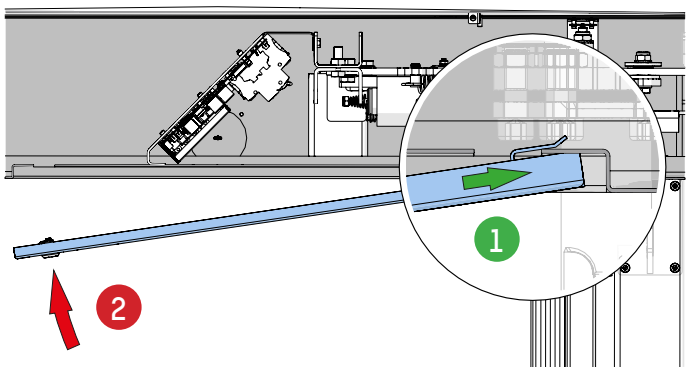


Fig. 29 - Installing the door

Removing the door:

1. Turn the key 180° anticlockwise while supporting the door.
2. Then let the door swing down on its own.
3. While supporting the door, pull it towards you to pull it out of its position in the unit and remove it.
   Remove the earth wire from the doors.

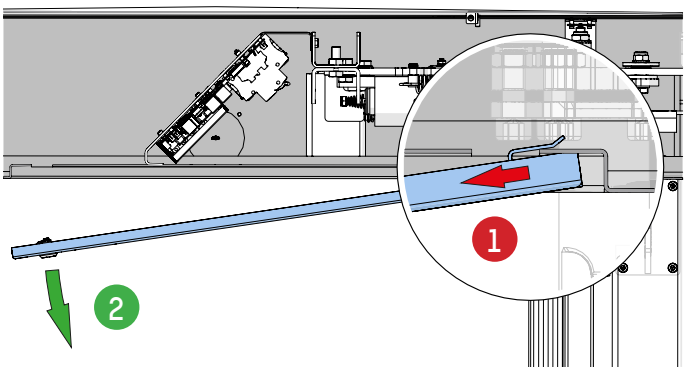


Fig. 30 - Removing the door

7.8. PREPARING FOR INSTALLATION WITH FIXING FRAME

1. Allow for the conduits (not supplied) for routing the cables for the power supply and any remote controls in the places shown on the installation diagram. Allow for 3 m of extra cable above the floor, as the connections are made in the head unit.
2. Prepare the shaft or the formwork for the concrete slab.

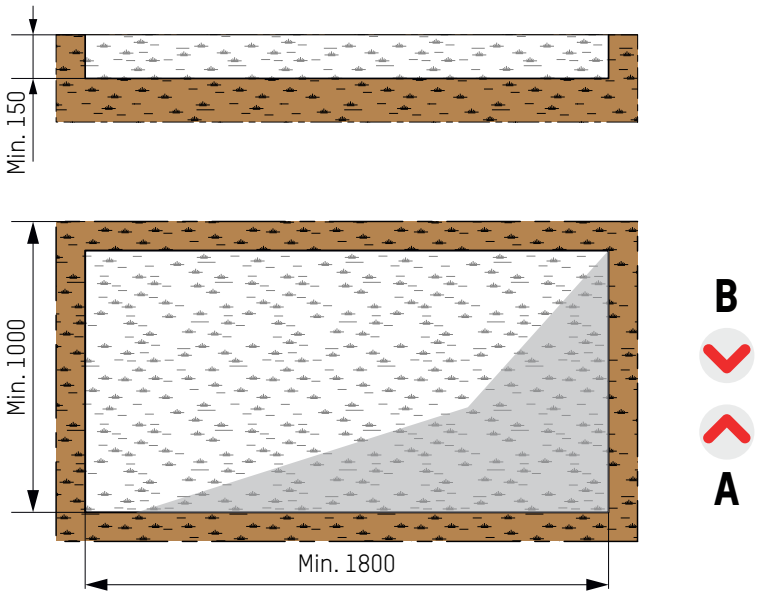


Fig. 31 - Shaft Dimensions

3. Assemble the various parts of the fixing frame using the screws and washers supplied. For battery mounting with TRS37X, connect the fixing frames to each other (⇨ Chap. 7.6, page 26)

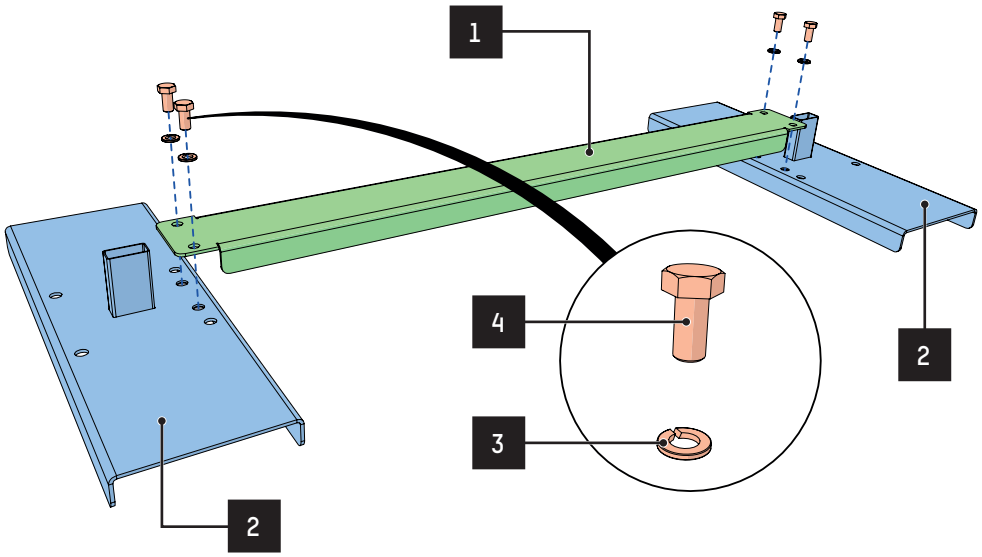


Fig. 32 - Assembling the Fixing Frame (GBR-E-0013108)

ITEM	ITEM NAME	QTY.
1	PMR Fixing Frame (1)	1
2	PMR Fixing Frame (2)	2
3	GROWER galvanised lock washer M12 ZN DIN 127	4
4	Galvanised screw DIN 933 TH T.F. M 12 x 25	4

4. Check that the elements of the fixing frame are perpendicular to each other and check the dimension of the passageway (1015 mm):

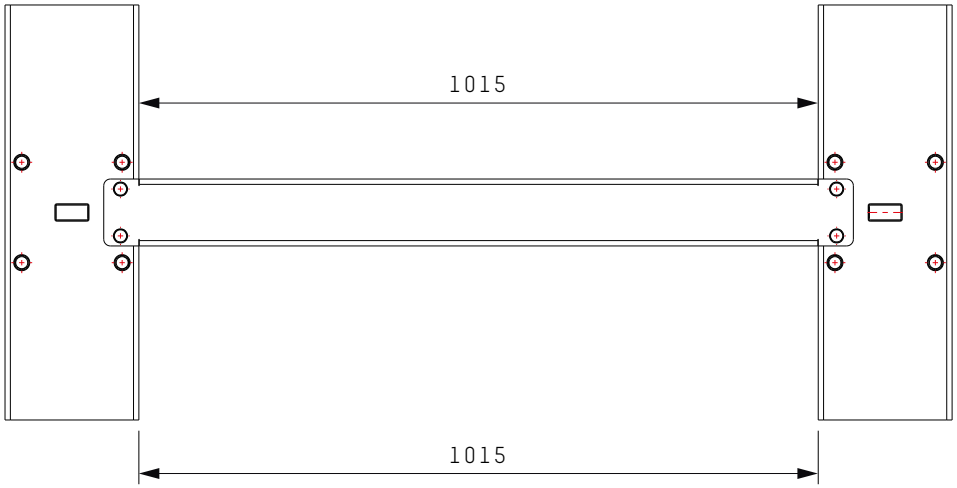


Fig. 33 - Shaft Dimensions

5. Position the fixing frame in the shaft:
   - Check that it is correctly oriented with the direction of passage.
   - Feed the power supply and remote-control cable conduits through the uprights supplied.
   - Make sure that the mounting rails are recessed relative to the finished floor level as shown on the installation diagram (the painted part of the rails must remain above the concrete).

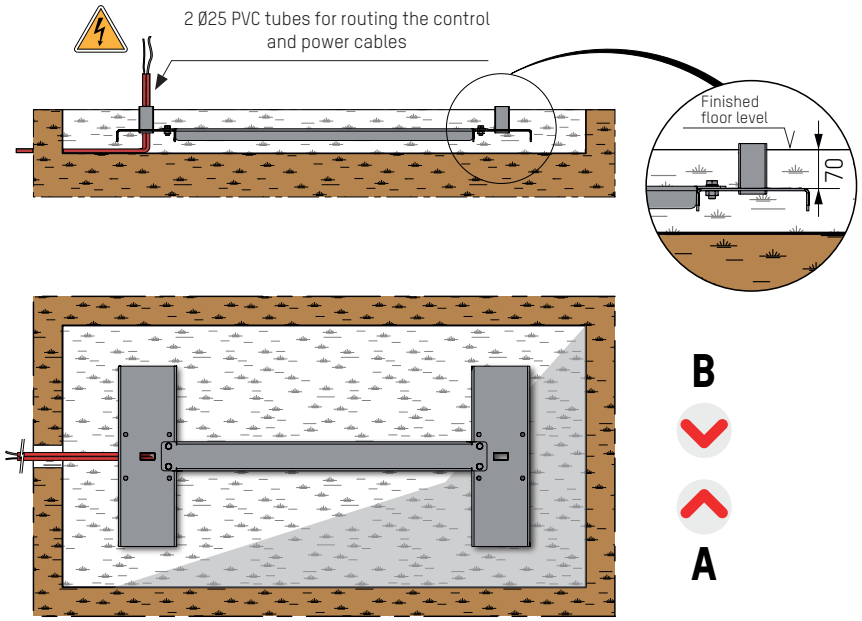


Fig. 34 - Positioning the Fixing Frame in the Shaft

6. Pour a standard concrete mix and level it.

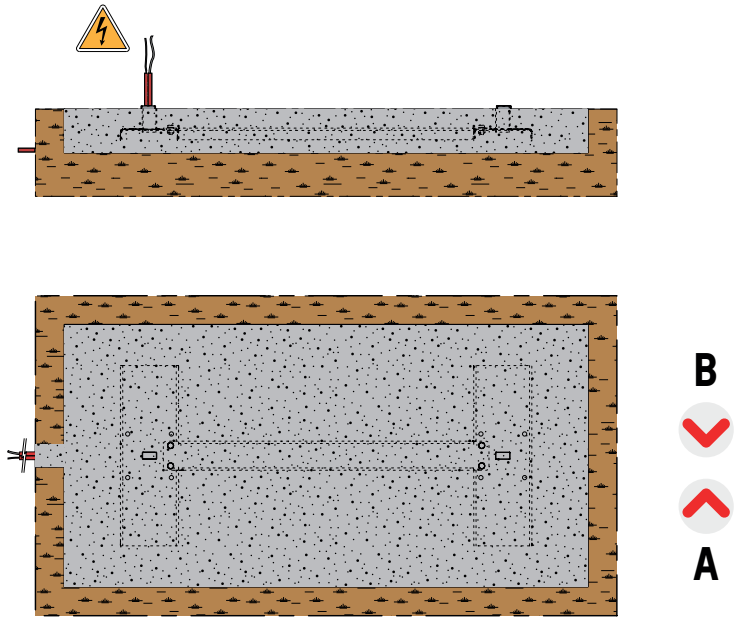


Fig. 35 - Installing the Fixing Frame - Concrete

7. Let it dry for about a week.

7.9. INSTALLATION OF OPTIONAL EQUIPMENT

7.9.1. ATTACHING THE CANOPIES (OPTIONAL)

Drill four Ø 8 mm holes in the head unit on each side of the unit according to the diagram below:

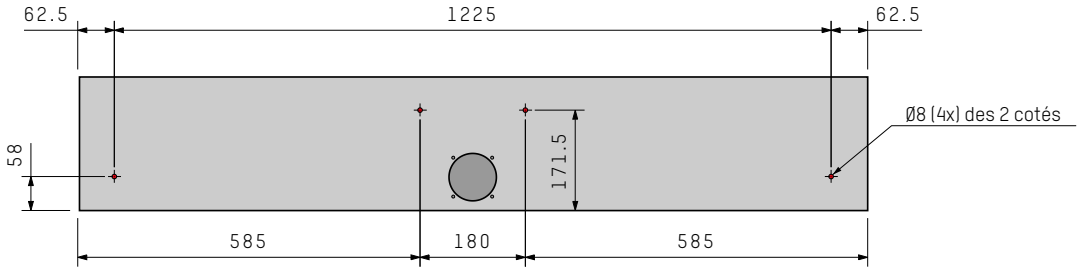
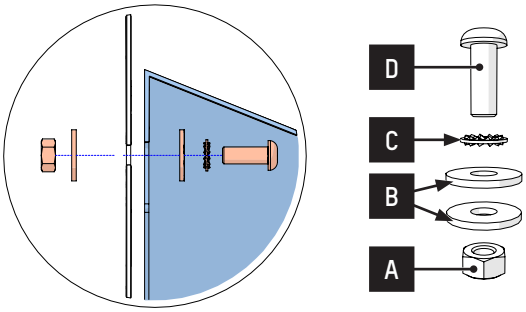


Fig. 36 - Drilling the Head Unit to Attach the Canopies



A	Stainless-steel A4 cnut DIN 934 M6	8x
B	Stainless-steel flat washer DIN 125 M6	16x
C	Stainless-steel fan lock washer DIN 6798 JZ	8x
D	Stainless-steel hexagon 1/2 button head screw M6 x 16	8x

The above hardware is provided for mounting two canopies.

To prevent the formation of rust, we recommend sealing the contact surface between the head unit and the canopy.

- **First solution:** Apply a bead of silicone sealant to the surface of the canopies in contact with the unit before attaching them and then attach the canopies with the hardware.

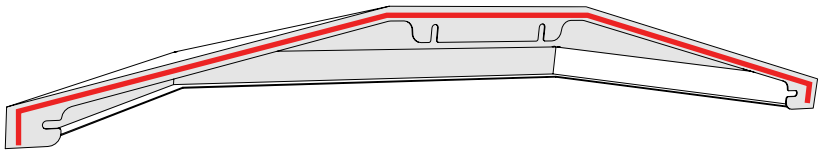


Fig. 37 - Silicone Sealant Bead on Installation Surface

- **Second solution:** First attach the canopies with the hardware and then apply a bead of silicone sealant around the connecting edge between the canopy and the unit.

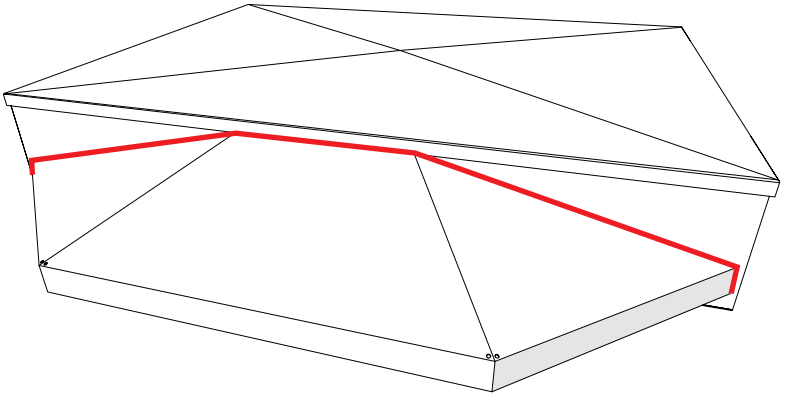


Fig. 38 - Silicone Sealant Bead around Connecting Edge

7.9.2. MOUNTING THE CARD READER BOX(ES) (OPTIONAL)

1. If not already done, remove the sealing caps from the mounting holes on the left upright (A ⇨ B).
2. If this has not already been done, feed the card reader connection cable through the upright. The cable must connect the card reader to the electronics in the head unit.

SEE THE ELECTRICAL DIAGRAM(S) SUPPLIED WITH THE EQUIPMENT FOR CONNECTING THE CARD READER(S).

3. Position the intermediate gasket (**2**) on the upright (**A**) and attach the card reader box (**1**) using the screws and washers supplied (**5**) + (**6**) + (**7**).
4. Position the gasket (**4**) on the card reader box and attach the front panel (**3**) using the stainless-steel screws (**8**).

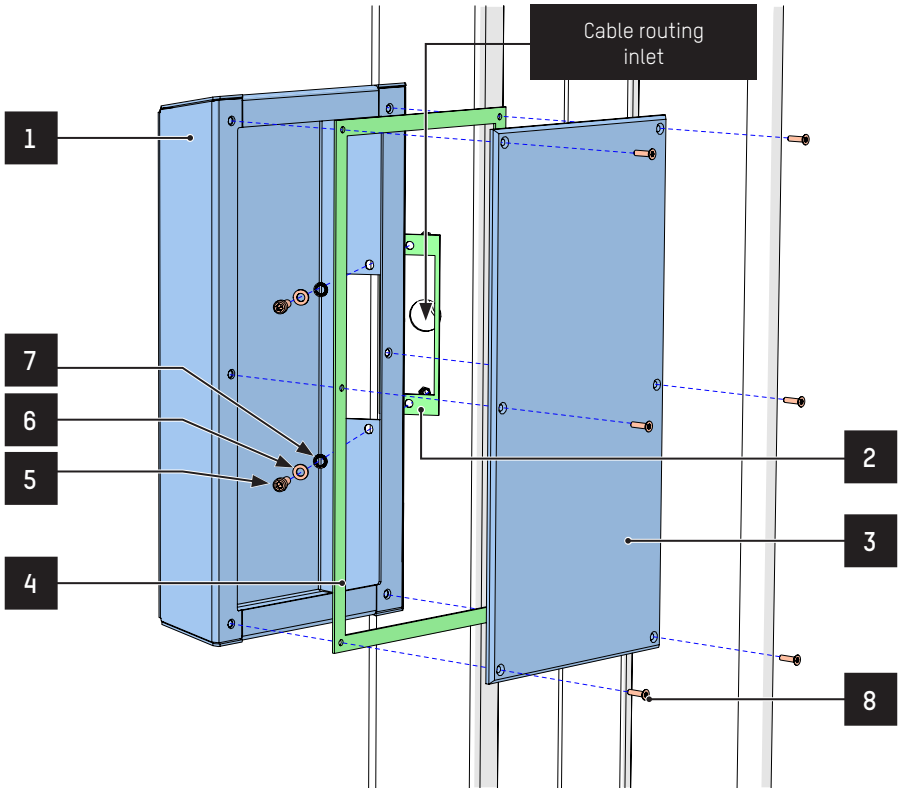


Fig. 39 - Mounting the Card Reader Box

ITEM	ITEM NAME	QTY.
1	Card reader box	1
2	Intermediate gasket on upright	1
3	Trespa front panel (6 mm) for card reader box	1
4	Gasket for card reader box	1
5	Screws DIN 912 M6 x 20	2
6	Flat washer DIN 125 M6	2
7	Fan-lock washer DIN 6798 M6	2
8	Screw IX DIN 7991 milled head M4x16 TORX DIN 7991+ SECURITY	4

See also chapitre 6.7. Box for Card Reader Integration (Optional) , page 20.

7.10. ELECTRICAL CONNECTIONS

Electrical equipment: screwdrivers, wire cutters, wire strippers, etc.

Connections must be made in accordance with the installation diagrams (⇨ Chap. 7.5) and the electrical diagrams which remain the reference.

The user is responsible for supplying the power and control cables, which are specified on the installation diagram.

If the recommended control cables are not being used, these must be kept separate from power cables to avoid interference and must therefore be routed through separate uprights.

- Connect the two phases of the power supply and the earthing connection (single-phase 120/230 VAC -50/60 Hz) to the circuit breaker. If necessary, cut off the excess length of cable. Protect the line upstream with a 16 A circuit breaker.

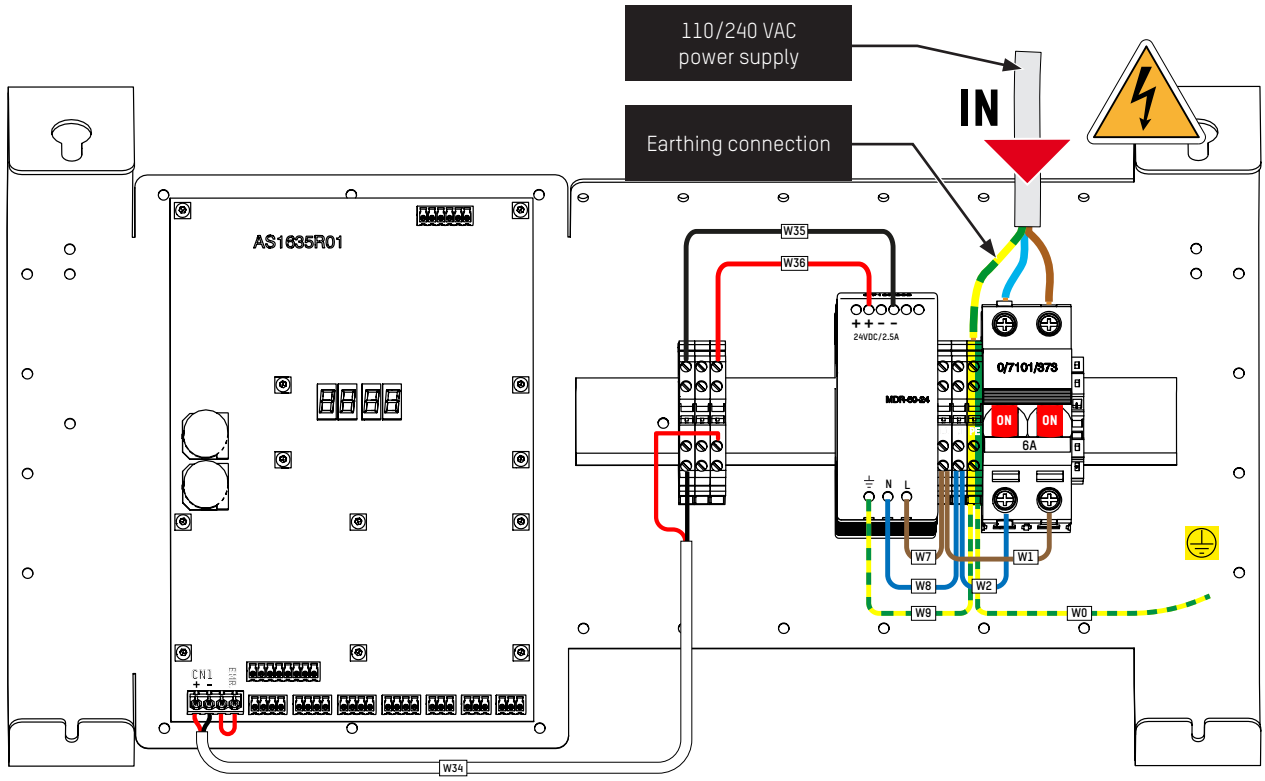


Fig. 40 - Electrical connections (manual TRS PMR)

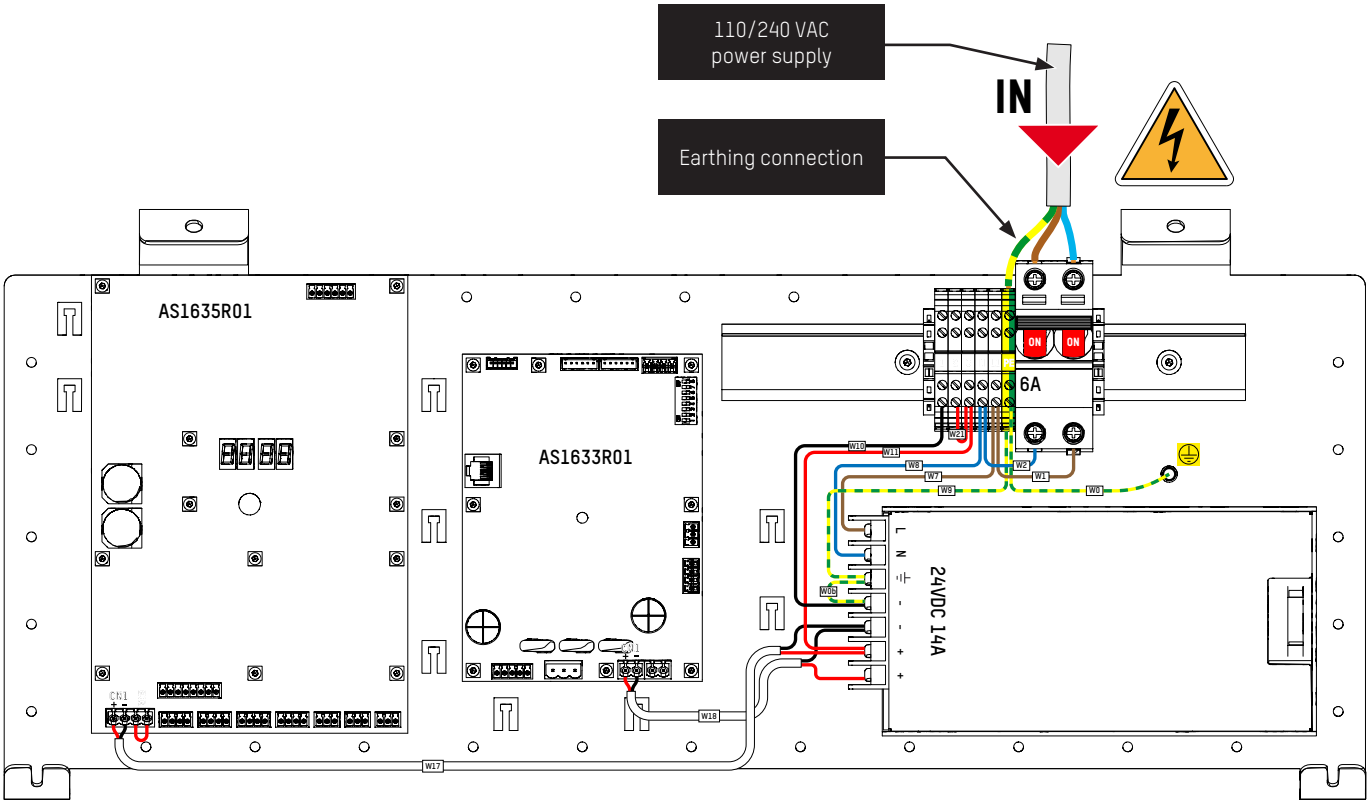


Fig. 41 - Electrical connections (motorised TRS PMR)

- Make sure that the incoming cables are not live. All internal connections were done in the factory (pictograms, lock actuation, position detector, etc.).
- Make sure that the metal parts of the equipment are securely connected to the main earth (vertical uprights, head unit, etc.).
- Make any other connections according to the installation specifications (control cables, card reader connection, etc.).
- Switch on and put the control logic access panel back in place.

8. SETTINGS

8.1. CALIBRATION VIA THE WEB INTERFACE (MOTORISED VERSION)

Refer to the AS1635 Control Logic Technical Manual to connect to the TRS PMR door and start calibration.

1. Connect to the TRS PMR door via the maintenance interface;
2. Put the door in a closed position;
3. In the maintenance interface, **Individual tests > Calibration**, click on **Lock** ⇨ the locks close*;
4. Then click on **Calibrate** ⇨ the closed position is then stored*

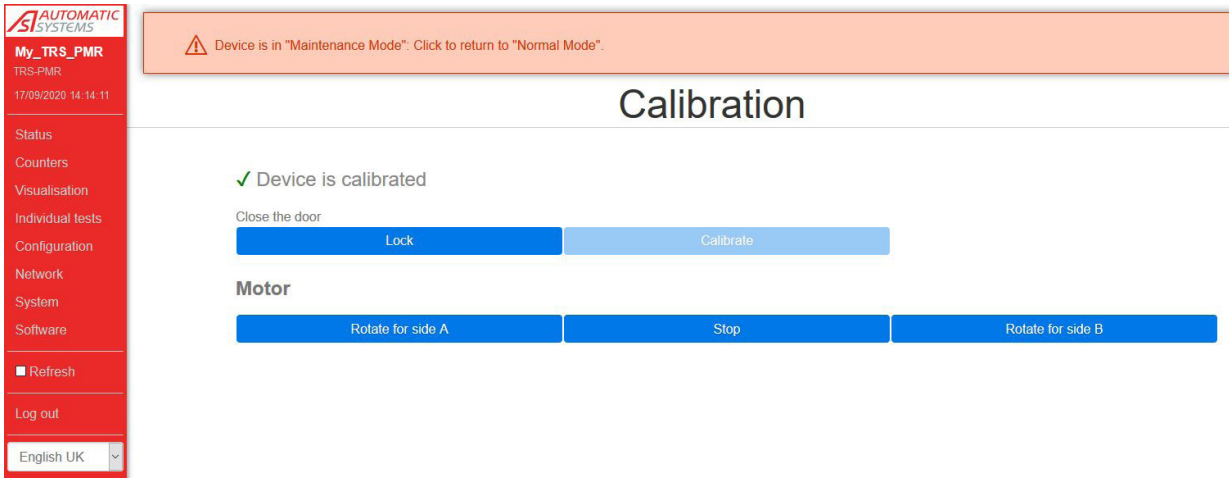


Fig. 42 - Web interface - Calibration - 1

Once the calibration has been performed, it is possible to perform A&B opening/closing tests via the "**Visualisation**" page:

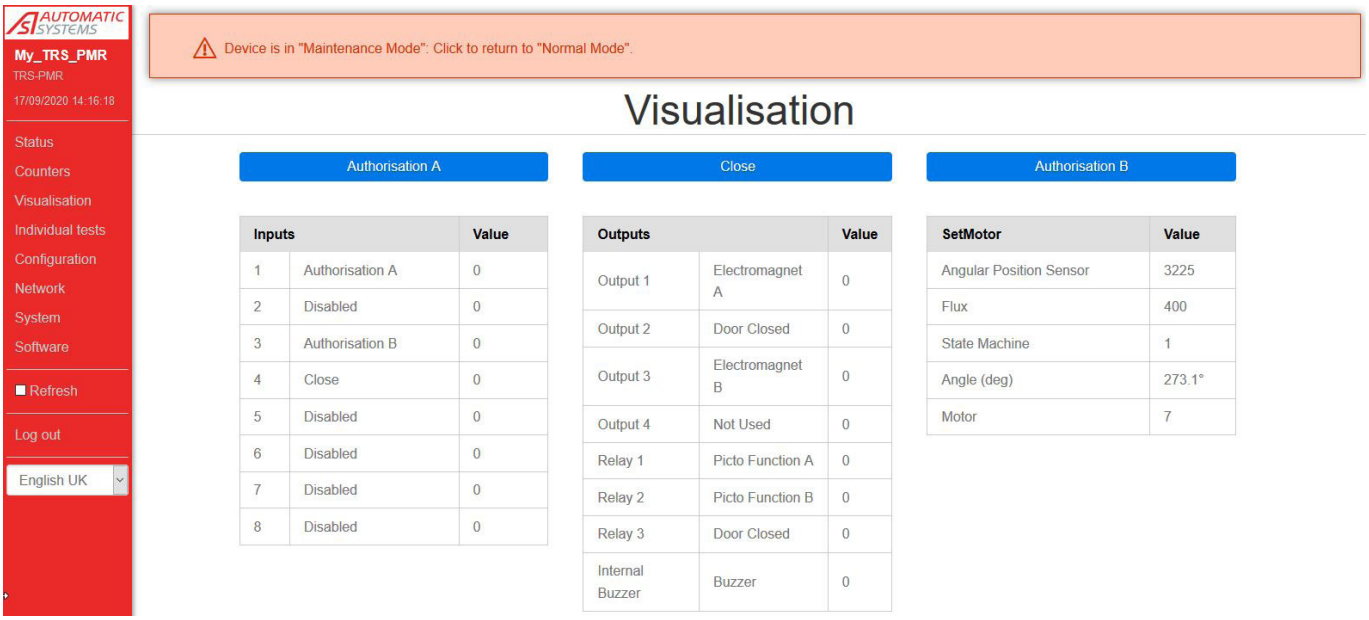
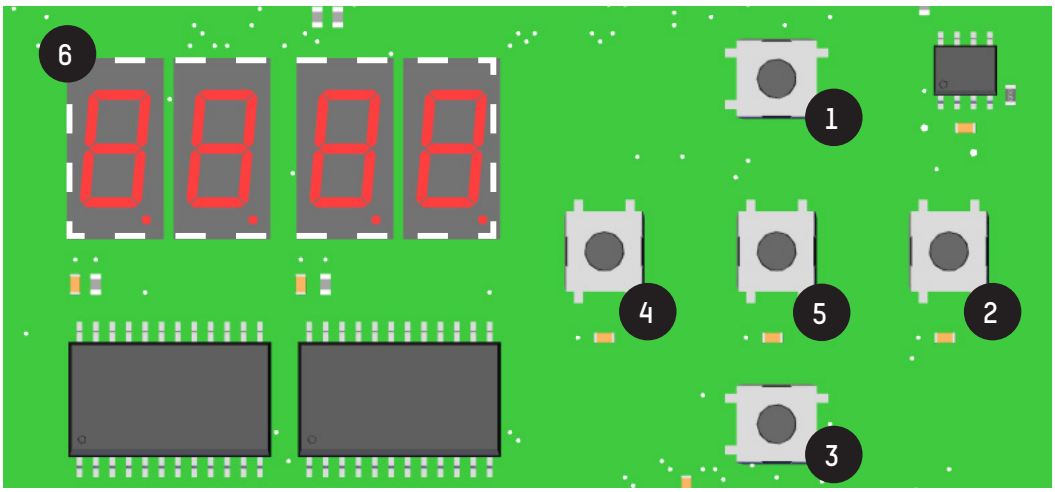


Fig. 43 - Web interface - Calibration - 2

8.2. CALIBRATION VIA THE INTEGRATED HMI INTERFACE (MOTORISED VERSION)



ITEM	ITEM NAME
1	UP button (SW6)
2	RIGHT button (SW5)
3	DOWN Button (SW7)

ITEM	ITEM NAME
4	LEFT button (SW4)
5	OK button (SW8)
6	LED display

Fig. 44 - HMI Interface - Calibration

Proceed with the calibration of the analogue sensor:

a. By briefly pressing the button down ▼ (**3**), we move from the SEt. menu to the CAL. menu.
b. In the "Calibration" menu, the display shows bLO, please press the right button for three sec. ▶ (**2**) until the -bLO configuration appears.
c. Then, return via the left button ◀ (**4**) to the bLO configuration, then via the bottom button ▼ (**3**) to the CAL menu.
d. Validate by pressing three sec. on the right button ▶ (**2**). By holding the right key down longer, the system starts the calibration and records its calibration position.

A message appears: CAL donE -rESEt boArd PLEASE ("CAL done -reset board please").

bLO : Lock the door
-bLO : Unlock the door

9. MAINTENANCE

9.1. REPLACING AN ELECTROMAGNET OR REVERSING ITS DIRECTION

The electromagnet is attached by three screws to an L-shaped bracket.

Unless otherwise specified, the door is configured in the factory to mode of operation 5 (unlocked in the event of a power failure (⇨ Chap. 6.1, page 15)).

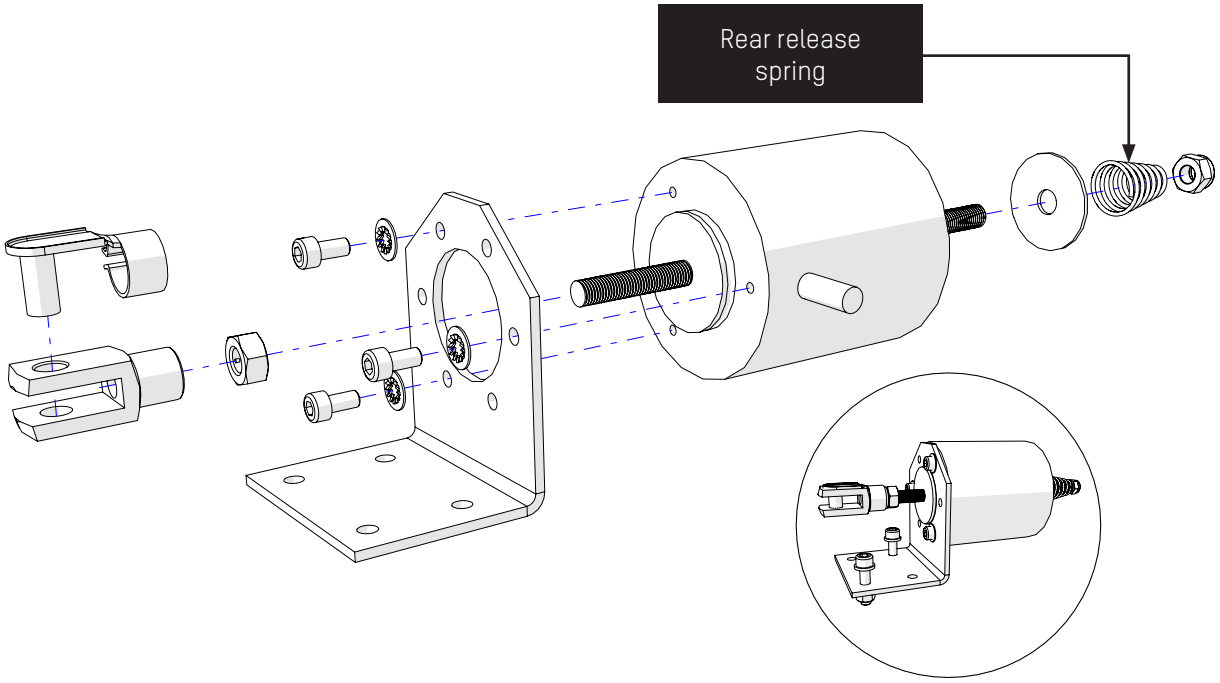


Fig. 45 - Mode of Operation 5

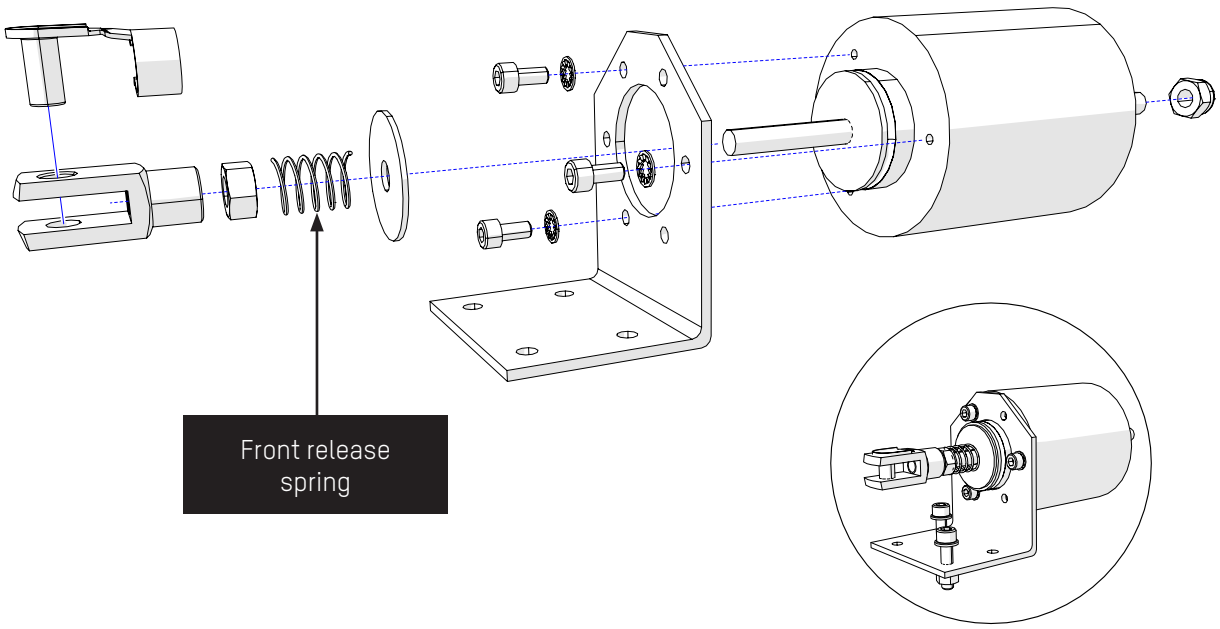


Fig. 46 - Mode of Operation 4

The procedure below provides the necessary information to switch the mode of operation from 5 to 4. The first steps of the procedure must be followed to replace a faulty electromagnet:

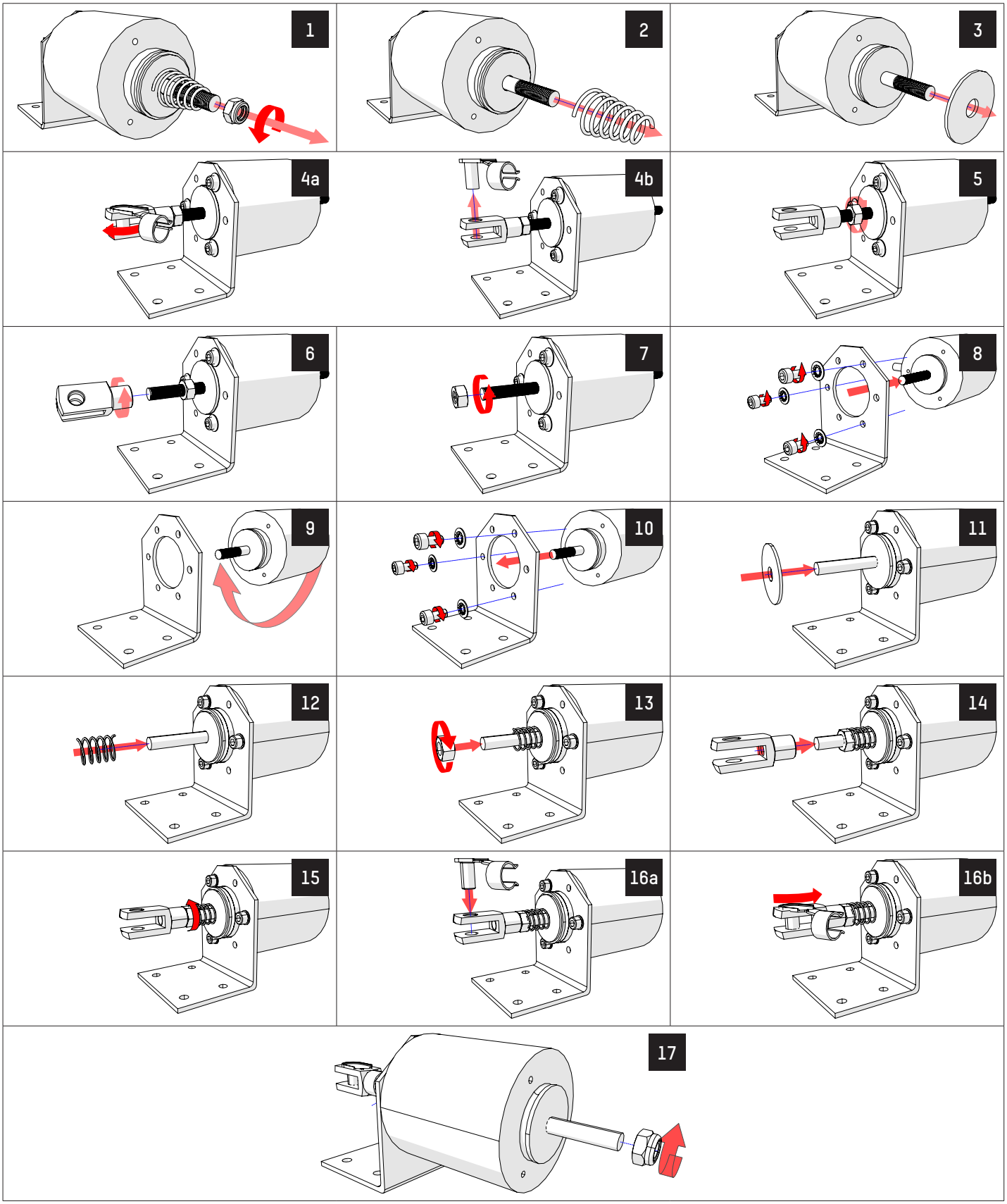


Fig. 47 - Change of Mode / Replacement of an Electromagnet

9.2. REPLACING THE SHOCK ABSORBER

The shock absorber is attached to its bracket by two nuts (see figure below). Note the position of the shock absorber and the pressure exerted on the release spring before replacing it.

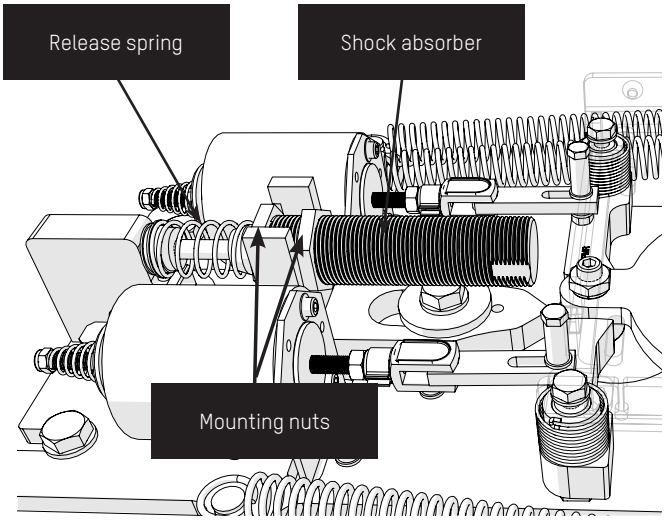


Fig. 48 - Mounting the Shock Absorber

9.3. REPLACING THE ANGLE ASSEMBLY

Replacing the angle assembly does not pose any particular problem:

1. Using the locking keys, remove the doors (⇨ Chap. 7.7.8, page 34) in order to remove the roof (⇨ Chap. 7.7.4, page 30).
2. Shut off the power supply (⇨ Chap. 7.4, page 22).
3. Disconnect the connecting cable between the component and the AS1635 board.
4. Using a hex key, remove the two fixing screws (**1**) from the bracket (2) and then remove the three countersunk screws (**3**).
5. Replace with the new AS1637 angle board (**4**).
6. Check that the level of the magnetic field of the magnet read by the AS1637 circuit is above 500.
   To do this, adjust the position of the bracket (**2**) at its two mounting holes (using the fixing screws (**1**)).
7. A calibration operation is necessary for power-up. (⇨ AS1635 Manual, Chap. “Individual tests”).

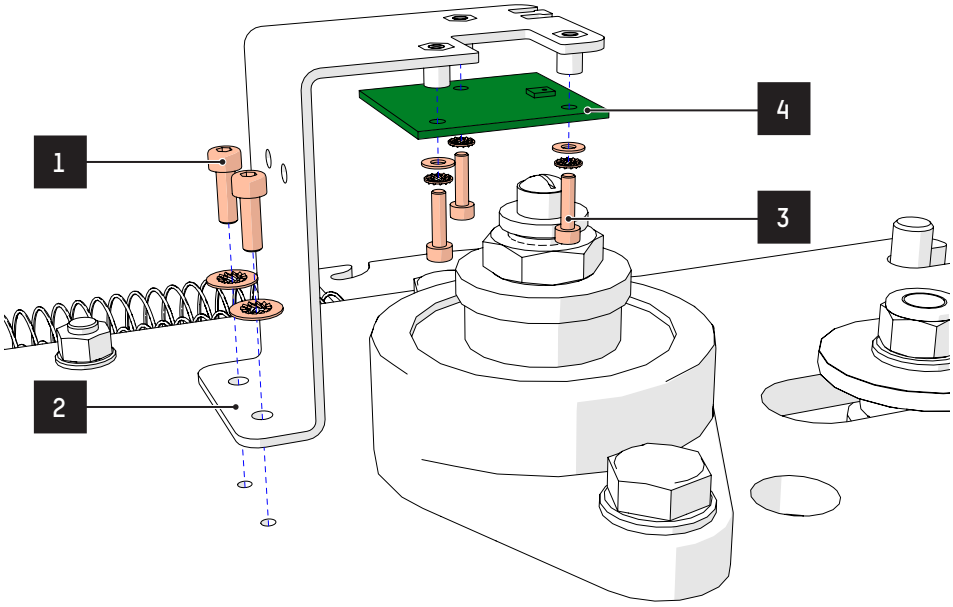


Fig. 49 - Replacing the Angle Assembly

9.4. REPLACING BUSHINGS, SPRINGS AND OTHER WEAR PARTS

After a few million operations, some bushings, washers and springs may show signs of wear; replacing them poses no particular problem. In case of wear, **Automatic Systems** can replace certain sub-assemblies containing several wear parts at the same time.

For example:

P/N	DESCRIPTION	COMMENT
1	Shock absorber assembly	Contains the shock absorber, the movement transmission system and its bracket.
2	Compensating arm assembly	Contains the compensating arm, its fasteners and the spring(s).
3	Lock assembly (**R or L**)	Contains the lock, pivot, torsion spring and fasteners.
4	Electromagnet assembly	Electromagnet with its bracket and fasteners.

9.5. REPLACING AN ORIENTATION PICTOGRAM

Orientation pictograms are attached to the sides of the head unit using four M6 screws, and the cable is connected to the logic circuit.

They are easy to replace provided that the roof is removed. Access is also possible once the access panel to the mechanical parts and logic system has been removed.

1. Disconnect the function pictogram cable from the control logic.
2. Remove the four fixing screws from the pictogram.
3. Replace the faulty pictogram and reassemble it by carrying out the steps described above in reverse order.

9.6. SERVICE

<table>
<tr><td>Every month
(See note opposite)</td><td>Check that the door is stable (floor attachment).

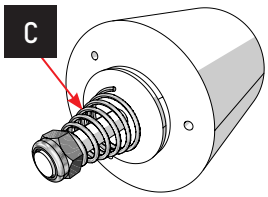
If motorisation: check the belt tension.

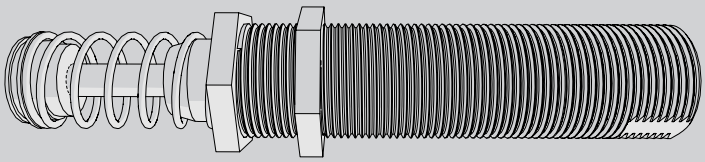
Clean the head unit, vertical uprights and rotating obstacle with water and a non-aggressive detergent (non-chlorinated in particular).

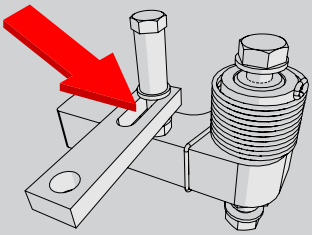
If the AISI 304 stainless-steel option has been chosen for the mobile obstacle, clean with a product for cleaning stainless steel. Automatic Systems can supply an approved product under part number 0/6031/000.

Repair any chips, dents or scratches on the painted surfaces of the equipment.

Service frequency must be adapted to the conditions in which the door is used, particularly if it is installed in an oxidising atmosphere: at the entrance to a swimming pool (heated and chlorinated atmosphere), at a beach, in an industrial environment, etc.</td></tr>
<tr><td>300,000 cycles</td><td>Replace the springs (0/0208/042) (C) in both electromagnets as they may break due to wear.

 
</td></tr>
<tr><td rowspan="4">1,000,000 cycles</td><td>Replace the shock absorber (Item N, Fig. 11, page 15), which becomes less effective with wear.

  </td></tr>
<tr><td>If motorisation: check the condition and tension of the belt.</td></tr>
<tr><td>Check that all bolts on the mechanical parts and supporting structure are tight.</td></tr>
<tr><td>Spray the pivots on the lock bolt with silicone spray (P/N 0/7508/284).

  </td></tr>
<tr><td>5 years</td><td>Replace the battery of the AS1635 control logic: 3 V/48 mA lithium battery. Automatic Systems can supply an approved product under part number 0/7111/010.

To access the battery, remove the access panel inside the head unit and remove the cover from the front panel of the logic assembly by unscrewing the four screws.</td></tr>
</table>

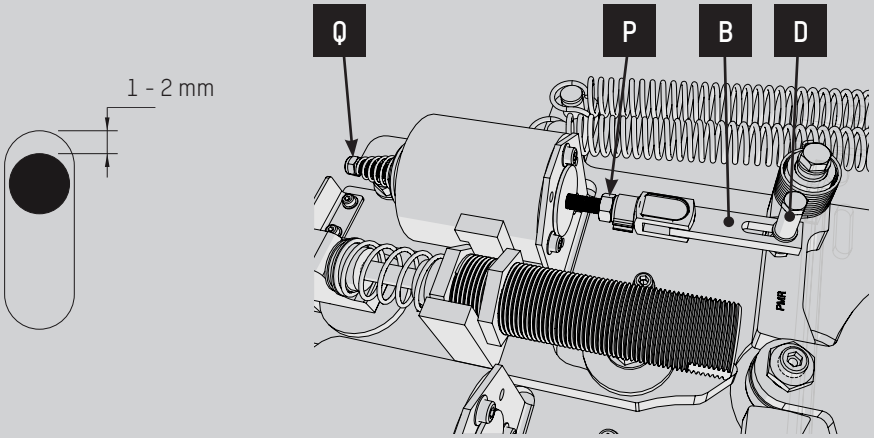
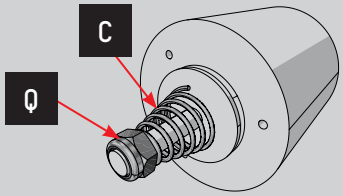
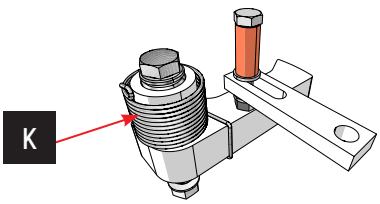
9.7. REPLACEMENT PARTS

⇨ See the separate catalogue available on the “Partner Portal”.

When ordering, please include the information shown on the nameplate of the equipment for which the replacement parts are intended:

- Serial No.
- Model (TRS PMR)

10. TROUBLESHOOTING

Door out of service.	Check the 230 VAC power supply as well as the 24 VDC voltage. See the messages on the control logic display (**OPERATION** group, **STATUS** setting).
Friction is noticeable in the rotational movements of the door.	Locks and/or rollers can seize up, especially in aggressive environments (e.g. in marine environments). Spray the parts to be freed up with silicone spray.
The door no longer unlocks.	Leave some clearance between the connecting rod (**B**) on the electromagnet and the rod (**D**) on the lock (by adjusting the length of the connecting rod using nuts **P** and **Q**) so as to cause a shock to the lock when the electromagnet is actuated. 
	Over-tightening can cause electromagnets to stick together. Loosen the nut (**Q**) slightly to decompress the spring (**C**). 
	The spring (**C**) does not have the necessary energy to pull the lock bolt: compress it by tightening the nut (**Q**) or replace it.
The door no longer locks.	The lock release spring (**K**) is slack. Re-tighten it with a few turns of the coil. 
The door does not open completely.	Check the belt tension and recalibrate.

11. EXTENDED SHUTDOWN / DISPOSAL / DESTRUCTION

If the equipment is not to be used for an extended period, it is advisable to:

- Store it under the same conditions as before installation.
- Leave it powered on, to maintain the charge on the CPU board battery (AS1635).

> If the equipment has been kept switched off and the ambient temperature is below -15° Celsius (5°F), it is important to warm it up for 30 minutes to an hour before switching it on.

- Ensure that the equipment is protected from bumps and impacts.
- Before commissioning, conduct a few test passages to check that the system is operating correctly.
- If the equipment is taken out of service, dispose of the various machine components through the appropriate channels (metal parts, electronic components, etc.) in accordance with applicable law.

If the equipment is taken out of service, dispose of the various machine components through the appropriate channels (metal parts, electronic components, etc.) in accordance with applicable law.

12. DESCRIPTION OF THE ELECTRONIC ASSEMBLY

12.1. AS1635 MOTHERBOARD

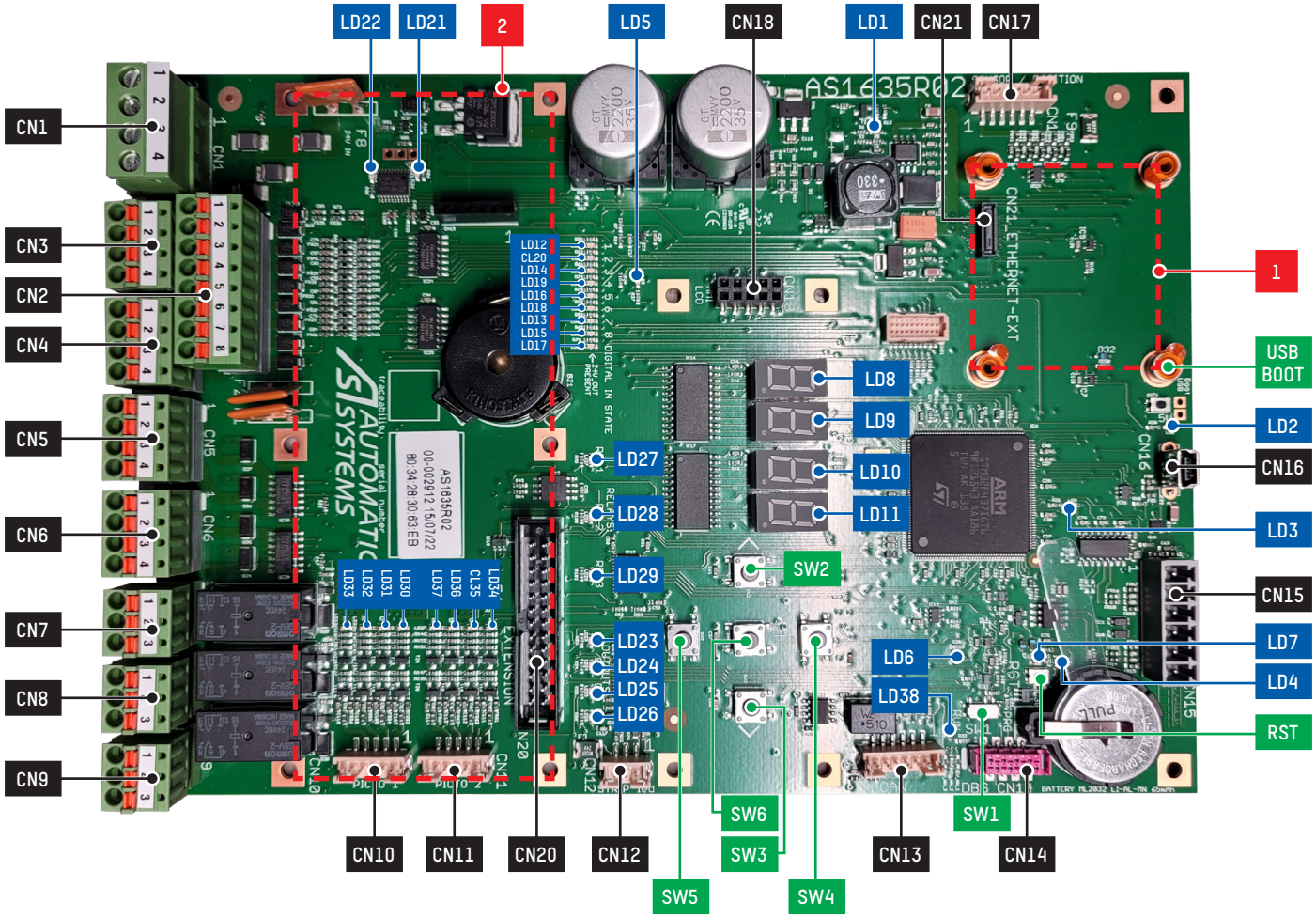


Fig. 50 - AS1635 Motherboard

CN1	Main power supply (24V DC) and emergency opening. Remove the bypass between CN1-3 and 4 to activate the emergency opening.
CN2	Digital inputs (8 inputs from In1 to In8)
CN3	0-24V terminal (to power any presence sensors)
CN4	0-24V terminal (to power any presence sensors)
CN5	Out1 and Out2 digital outputs
CN6	Out3 and Out4 digital outputs
CN7	Relay R1 (with dry contact NO and NC)
CN8	Relay R2 (with dry contact NO and NC)
CN9	Relay R3 (with dry contact NO and NC)
CN10	Orientation Pictogram A
CN11	Orientation Pictogram B
CN12	Not used
CN13	CAN bus (to optional motor board)
CN14	Debug programming (reserved for developers)
CN15	RS232 and RS485 serial communication
CN16	USB port to configuration interface
CN17	Position sensor

SW1	RUN or Programming Mode (for developers)
SW2	HMI **LEFT** button
SW3	HMI **RIGHT** button
SW4	HMI **UP** button
SW5	HMI **DOWN** button
SW6	HMI **OK** button
RST	Reset button
USB BOOT	Relaunches the processor with USB connection

1	AS1622 Ethernet board slot (optional).
2	Expansion card slot (optional).

LD1	●	Green	Fixed	Activity indicator voltage present
LD2	●	Red	Fixed	MAJOR error
LD3	●	Yellow	Fixed	Minor error
LD6	●	Green	Blinking	Activity indicator programme running
LD8	●	Red		Left HMI 7-segment display
LD9	●	Red		Centre left HMI 7-segment display
LD10	●	Red		Centre right HMI 7-segment display
LD11	●	Red		Right HMI 7-segment display
LD12	●	Green	Fixed	Activity indicator digital input 1
LD13	●	Green	Fixed	Activity indicator digital input 7
LD14	●	Green	Fixed	Activity indicator digital input 3
LD15	●	Green	Fixed	Activity indicator digital input 8
LD16	●	Green	Fixed	Activity indicator digital input 5
LD17	●	Green	Fixed	Activity indicator 24V present
LD18	●	Green	Fixed	Activity indicator digital input 6
LD19	●	Green	Fixed	Activity indicator digital input 4
LD20	●	Green	Fixed	Activity indicator digital input 2
LD21	●	Green	Blinking	Activity indicator Watchdog processor
LD23	●	Yellow	Fixed	Activity indicator digital output 1
LD24	●	Yellow	Fixed	Activity indicator digital output 2
LD25	●	Yellow	Fixed	Activity indicator digital output 3
LD26	●	Yellow	Fixed	Activity indicator digital output 4
LD27	●	Yellow	Fixed	Activity indicator relay output 1
LD28	●	Yellow	Fixed	Activity indicator relay output 2
LD29	●	Yellow	Fixed	Activity indicator relay output 3
LD30	●	Green	Fixed	Red colour function pictogram direction A
LD31	●	Green	Fixed	Green colour function pictogram direction A
LD32	●	Green	Fixed	Blue colour function pictogram direction A
LD33	●	Green	Fixed	White colour function pictogram direction A
LD34	●	Green	Fixed	Red colour function pictogram direction B
LD35	●	Green	Fixed	Green colour function pictogram direction B
LD36	●	Green	Fixed	Blue colour function pictogram direction B
LD37	●	Green	Fixed	White colour function pictogram direction B
LD38	●	Green	Blinking	Activity indicator CAN bus

For further information, please see the AS1635 Logic Manual.

12.2. AS1633 MOTOR BOARD (MOTORISED VERSION)

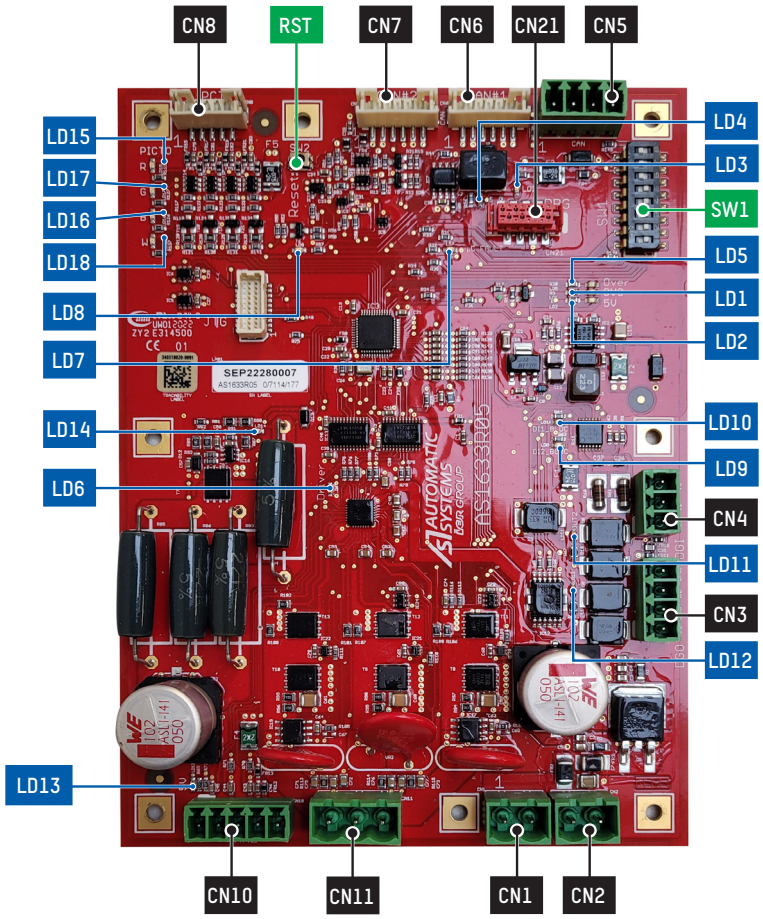


Fig. 51 - AS1633 Motor Board

CN1	24VDC SUPPLY INLET
1	+ 24VDC
2	GND

CN2	24VDC POWER SUPPLY OUTPUT
1	+ 24VDC
2	GND

CN3	DIGITAL OUTPUTS
1	OUT 1
2	GND
3	OUT 2
4	GND

CN4	DIGITAL INPUTS
1	+ 24VDC
2	IN 2
3	IN 1

CN5	INTER-FURNITURE BUS CAN
1	GND
2	CAN +
3	CAN -
4	GND

CN6	LOCAL BUS CAN [2]
1	+ 24VDC
2	GND
3	CAN +
4	CAN -
5	GND
6	+ 24VDC

CN7	LOCAL BUS CAN (CPU)
1	+ 24VDC
2	GND
3	CAN +
4	CAN -
5	GND
6	+ 24VDC

CN8	PICTOGRAM [2]
1	Red
2	Green
3	Blue
4	White
5	GND

CN9	AS PROGRAMMING [1]

CN10	MOTOR ENCODER
1	Hall A
2	Hall B
3	Hall C
4	+ 12VDC
5	GND

CN11	MOTOR POWER
1	Phase C
2	Phase B
3	Phase A

[1] Reserved for factory programming by Automatic Systems.
[2] Not used.

TRS PMR

LD1	●	Green	3.3 VDC indicator
LD 2	●	Green	5 VDC indicator
LD 3	●	Green	BUS CAN power indicator
LD 4	●	Yellow	CAN Activity indicator
LD 5	●	Red	OVER indicator
LD 6	●	Red	DRIVE status indicator
LD 7	●	Red	Microprocessor FAULT indicator
LD 8	●	Green	Activity indicator – Watchdog
LD 9	●	Green	Activity indicator digital input 2
LD 10	●	Green	Activity indicator digital input 1
LD 11	●	Yellow	Activity indicator digital output 2

[1] Not used.

LD 12	●	Yellow	Activity indicator digital output 1
LD 13	●	Green	5 VDC CODER indicator
LD 14	●	Yellow	Brake Circuit indicator
LD15	●	Green	Dynamic lighting managed by AS1656. [1]
LD16	●	Green	Dynamic lighting managed by AS1656. [1]
LD17	●	Green	Dynamic lighting managed by AS1656. [1]
LD18	●	Green	Dynamic lighting managed by AS1656. [1]

SW4	DIP switches CAN address.
RST	Reset Motor Board button.

CAUTION:
REVERSING THE MOTOR AND ENCODER POWER CONNECTORS, CN1 & CN2, LEADS TO THE DESTRUCTION OF THE MOTOR BOARD! CHECK THE CONNECTOR AFTER ANY INTERVENTION ON THIS BOARD!

13. ELECTRICAL DIAGRAMS

See the **Electrical Technical File** provided with the device or accessible via the following links:

SCAN ME

CLICK HERE

14. DECLARATION OF CONFORMITY

AUTOMATIC SYSTEMS

DECLARATION OF CONFORMITY

We, undersigned,

AUTOMATIC SYSTEMS SAS
22 rue du 8 mai 1945
95340 PERSAN
FRANCE

Herewith declare that the following machines:

Full-height security turnstile
TRS 370 / TRS 371 / TRS 372 / TRS 373

Full-height security turnstile / Bike gate
TRS BIKE

Security door / People with Reduced Mobility
TRS PMR

are in accordance with the conditions of the following Directives, standards and other specifications:

- Machinery Directive 2006/42/EC.
- Low-voltage Directive 2014/35/EU.
- Electromagnetic compatibility Directive 2014/30/EU.
- Directive RoHS 2 (Restriction of Hazardous Substances) (2011/65/EU) - Delegated Directive RoHS 3 (EU) 2015/863.
- EN 12100:2010: Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010).
- EN 17352 - Power operated pedestrian entrance control equipment - Safety in use - Requirements and test methods.
- EN 60204-1 :2018: Safety of machinery - Electrical equipment of machines - Part 1: General requirements.
- EN 61000-6-3 :2021: Electromagnetic compatibility (EMC) - Generic standards - Emission standard for residential, commercial and light-industrial environments.
- EN 61000-6-2 :2019: Electromagnetic compatibility (EMC) - Generic standards - Immunity standard for industrial environments.

Made in PERSAN,
Date: 2026.02.16

Karel VERGOTE | Chief Innovation & Technology Officer

Automatic Systems SA

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Avenue Mercator, 5 - 1300 WAVRE - BELGIUM
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www.automatic-systems.com

Fig. 52 - Declaration of Conformity

NOTES

AUTOMATIC SYSTEMS

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