

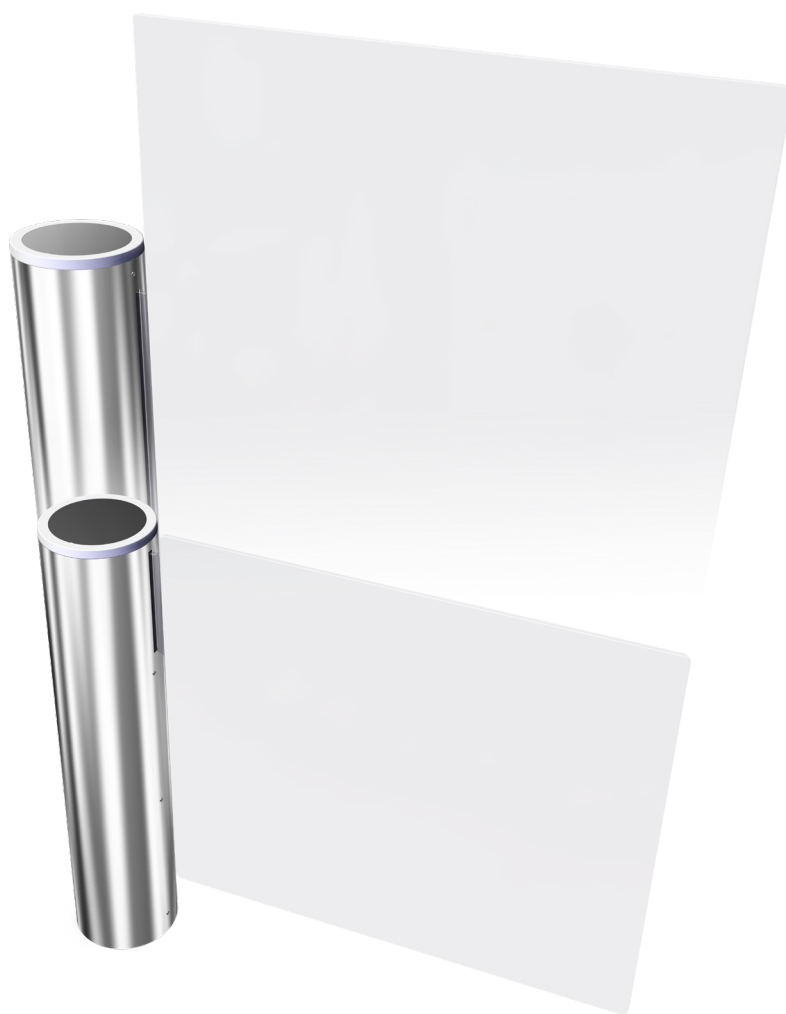
ACCESSLANE

Swing gate

TECHNICAL MANUAL

(Translated from the original French version)

Rev. 09 • Update 08/2022



 **AccessLane**[™]



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1. SAFETY WARNING

- The **AccessLane** gates are designed to control access for persons to a given area and cannot be used for another purpose without risk to the user and the integrity of the equipment.
In particular, they are **NOT** designed to facilitate pedestrian traffic and must **NOT** be used as routine entry/exit doors. Automatic Systems cannot be held liable for damage resulting from improper use of the equipment.
- It is mandatory to let the equipment complete its opening and closing cycles automatically (without pushing the obstacle) to avoid accidental deactivation.
- All operations on the equipment must be carried out by qualified personnel. Any unauthorized work or work performed by an unqualified technician on this product shall automatically void the manufacturer's warranty.
- Personal protective equipment (PPE) must be worn when working:



- Access to the mechanism must be reserved for staff who are aware of the electrical and mechanical risks incurred in case of negligent handling.
- If possible, disconnect the power supply before opening the enclosure.
- Otherwise, turn the power off by means of the circuit breaker located on the power board (⇒ Ref **20**, Chap. 3.5).



IN BOTH CASES, WAIT 5 MINUTES BEFORE ANY FURTHER HANDLING (DISCHARGE OF CAPACITORS!)

- Any internal component likely to be energized or in movement must be handled with caution.
- Use of antistatic gloves or bracelets (ElectroStatic Discharge) is essential when handling electronic printed circuit boards, at the risk of the warranty being voided.
- The equipment is configured in "minimal risk" mode for users. Parameters should only be changed by qualified personnel with full knowledge of the consequences, and any such changes shall in no way entail any liability on the part of Automatic Systems.
- If the product is resold, it is the responsibility of the seller to ensure, for each piece of equipment that is offered, sold and installed, that its foreseeable environment and use take into account the technical characteristics of the equipment and comply with these requirements.
- The seller shall defend and indemnify Automatic Systems from any claims against Automatic Systems due to the seller's failure to comply with the above obligations.



**THERE IS A RISK OF EXPLOSION IF THE BATTERY OF CPU BOARD AS 1190 IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES IN ACCORDANCE WITH THE INSTRUCTIONS IN CHAP. 6.16, PAGE 36.**

2. GENERAL SYMBOLS

The following symbols are used in this manual or as labels on the equipment:



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



Reminder or **quick tip** useful for understanding how the product works.



This symbol is used to highlight **an important instruction** for the correct use and/or maintenance of the product.



Important! : This symbol is used to highlight a **risk of injury or material damage**.



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



This symbol is used to highlight a **risk of cutting yourself**.



This symbol is used to identify the **principal ground connection point**.
(Either in the form of an affixed label or directly engraved on a mechanical part).



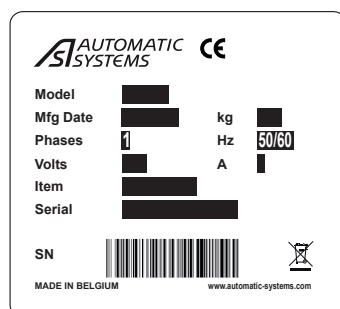
This symbol is used to indicate the **tools** required for the relevant operation.



This symbol indicates that the equipment **conforms to European standards and directives**.



This symbol indicates that the equipment must **be disposed of in accordance with the applicable European Directives** (DEEE 2012/19/EU).



Product identification label.

3. DESCRIPTION

3.1. TERMINOLOGY

AS	Automatic Systems.
Lane	Passage defined by the width of the obstacle.
DIRAS	Infrared detection technology developed by Automatic Systems.
Reader	Equipment used to validate the user's travel ticket. (not supplied by Automatic Systems).
Maintenance Interface	Tool that allows direct connection to an AccessLane, for configuration, monitoring, diagnosis & maintenance operations (⇒ see dedicated manual).
Obstacle	Element creating the obstruction to passage.
Security	Equipment's capability to prevent violations.
Direction A	By convention, direction A is the direction of passage for which the bodywork is located to the right of the passage.
Direction B	Direction of passage contrary to direction A. Direction B is the direction of passage for which the bodywork is located to the left of the passage.
Safety	Protection of users during use of the equipment.
PRM	Abbreviation of Person with Reduced Mobility.

3.2. GAMME



Fig. 1 - Swing gate AL 933

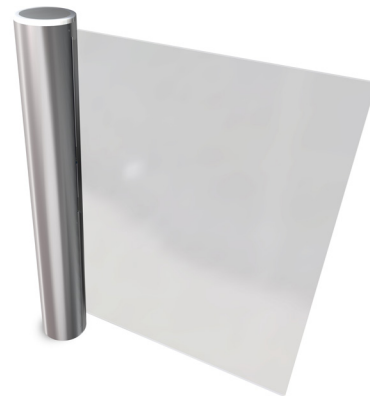


Fig. 2 - Swing gate AL 934



Can be installed face to face. (Master-slave type operation)

3.3. OVERALL DIMENSIONS

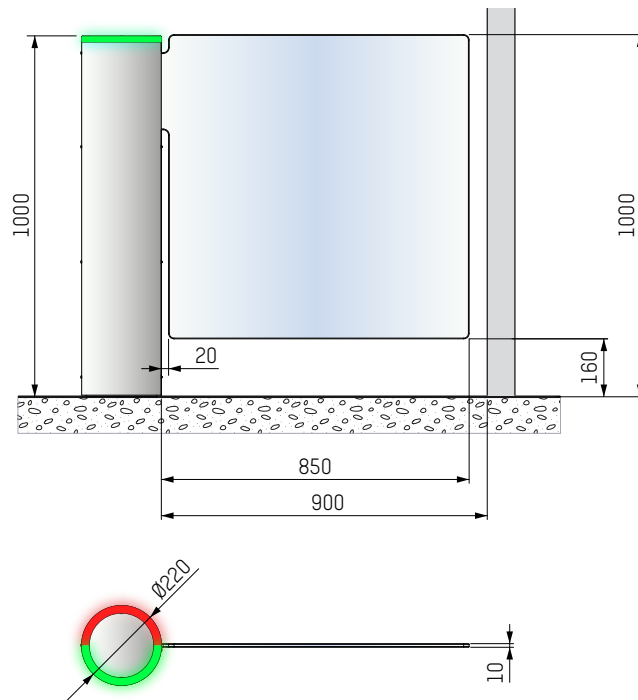


Fig. 3 - Overall dimensions AccessLane 933

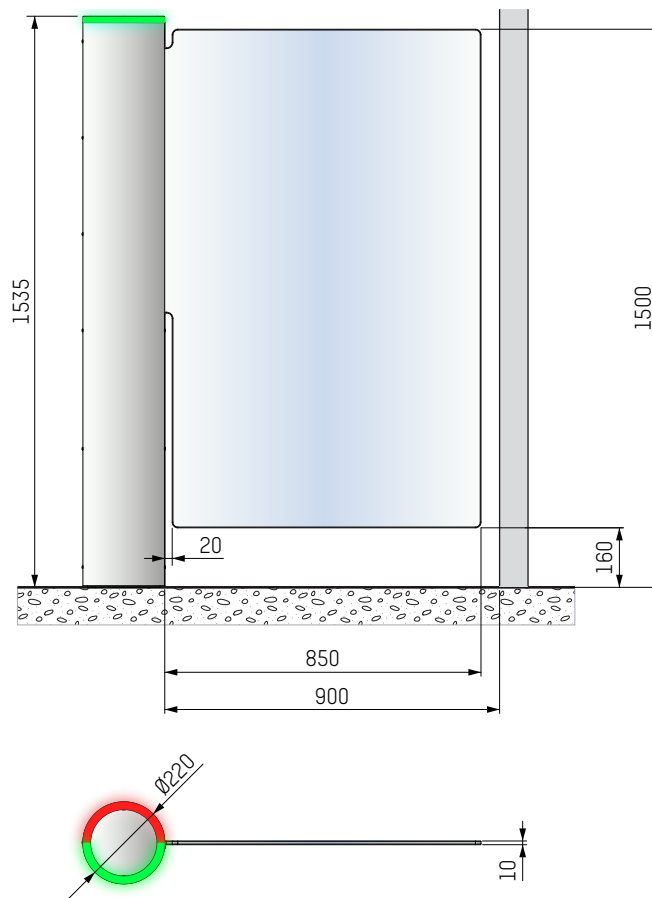






Fig. 4 - Overall dimensions AccessLane 934

3.4. TECHNICAL SPECIFICATIONS

		AL 933	AL 934
Power supply:	Single phase 110 VAC (1A)-240 VAC (0.5A) (+/- 10%) - 50/60 Hz + Ground.		
		Each lane is protected by a 6A circuit breaker.	
		THE POWER SUPPLY MUST BE PROTECTED BY A 16 A CIRCUIT BREAKER + 30 MA DIFFERENTIAL CIRCUIT BREAKER.	
Peak current:			< 1 A
Leakage current:			< 3,5 mA
AISI 304L brushed stainless steel housing, 1.5 mm thick.			✓
Steel frame with RoHS zinc-plated corrosion resistance.			✓
Tempered safety glass obstacles, 10 mm thick.			✓
Passage width (L):		900 mm 1050 mm 1250 mm ⁽¹⁾	900 mm 1050 mm 1250 mm
Obstacle height:		900 ⇔ 1200 mm	1500 ⇔ 1900 mm
Power consumption	At rest:	< 10 W	
	During operation:	15 W	
Motor	24 VDC – Nominal output power:	30 W	
Brake	Static friction torque:	200 Nm ±10%	
Operating time:	Opening / Closing:	4 sec.	6 sec.
		Depending on the access control system reactivity and the user speed.	
Impulse length for IN1 or IN2 passage authorization (from reader or push button). See the Electrical Technical File supplied with the device.		0,1 sec. Minimum 1,0 sec. Maximum	
Ambient temperature during use:		-10 to +50°C	
Ambient relative humidity during use, without condensation:		< 95%	
Protection rating (IP)		42	
MCBF (Mean Cycles Between Failures) with recommended maintenance:		5,000,000	
MTTR (Mean Time To Repair)		Less than 30 minutes	
Weight (without obstacle):		55 kg	72 kg
Strength limit of doors compliant with standard:		EN 16005	
Wiring, connectors and sleeves:		halogen-free, RoHS	
Complies with European standards 		✓	

⁽¹⁾ Stainless steel roll bar also available as an option in this size.

3.5. LOCATION OF COMPONENTS

3.5.1. EXTERNAL COMPONENTS

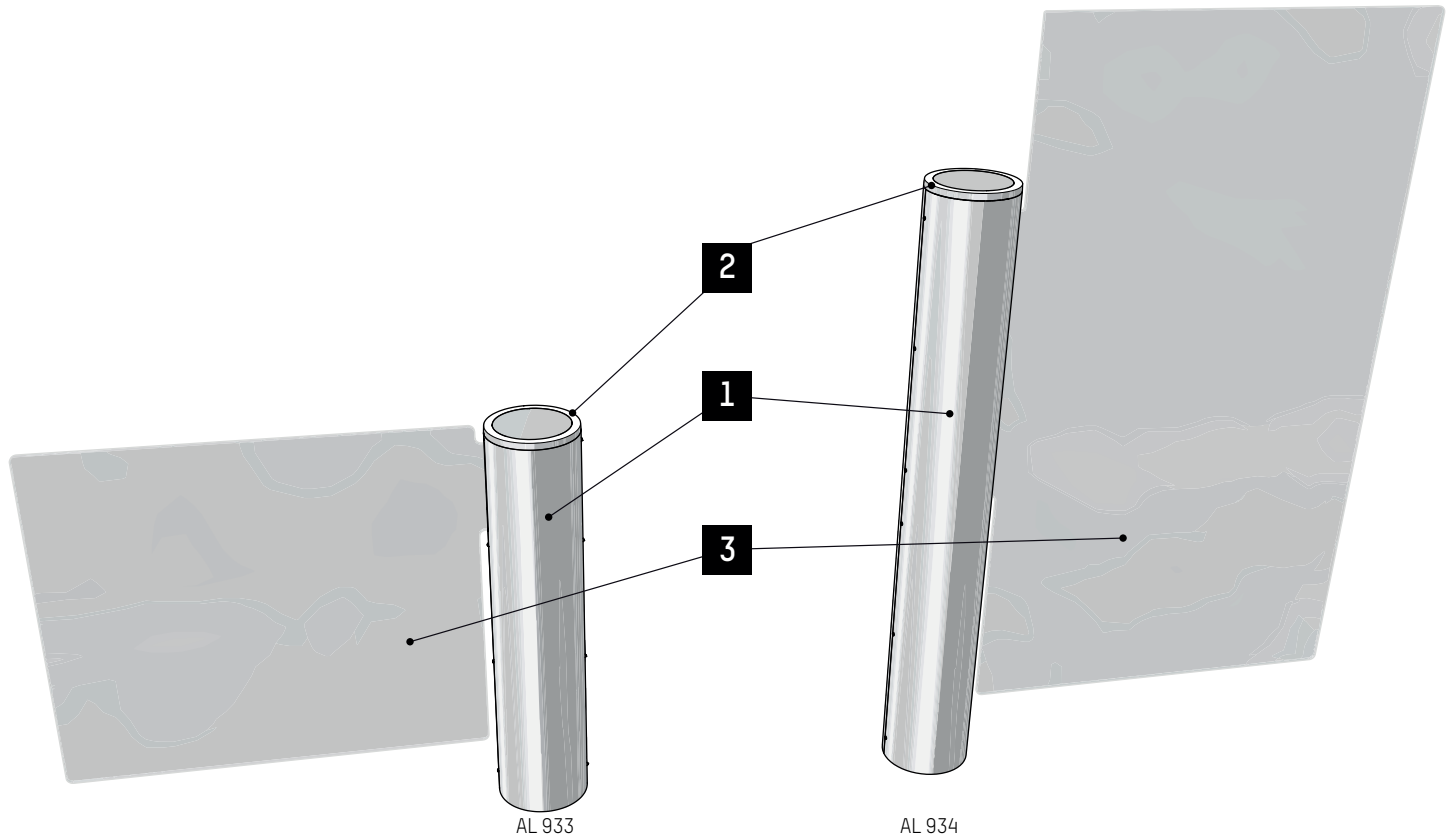


Fig. 5 - Location of external components

REF.	DESIGNATION
1	Housing in stainless steel AISI 304L
2	Status light
3	Mobile obstacle in toughened safety glass

3.5.2. INTERNAL COMPONENTS

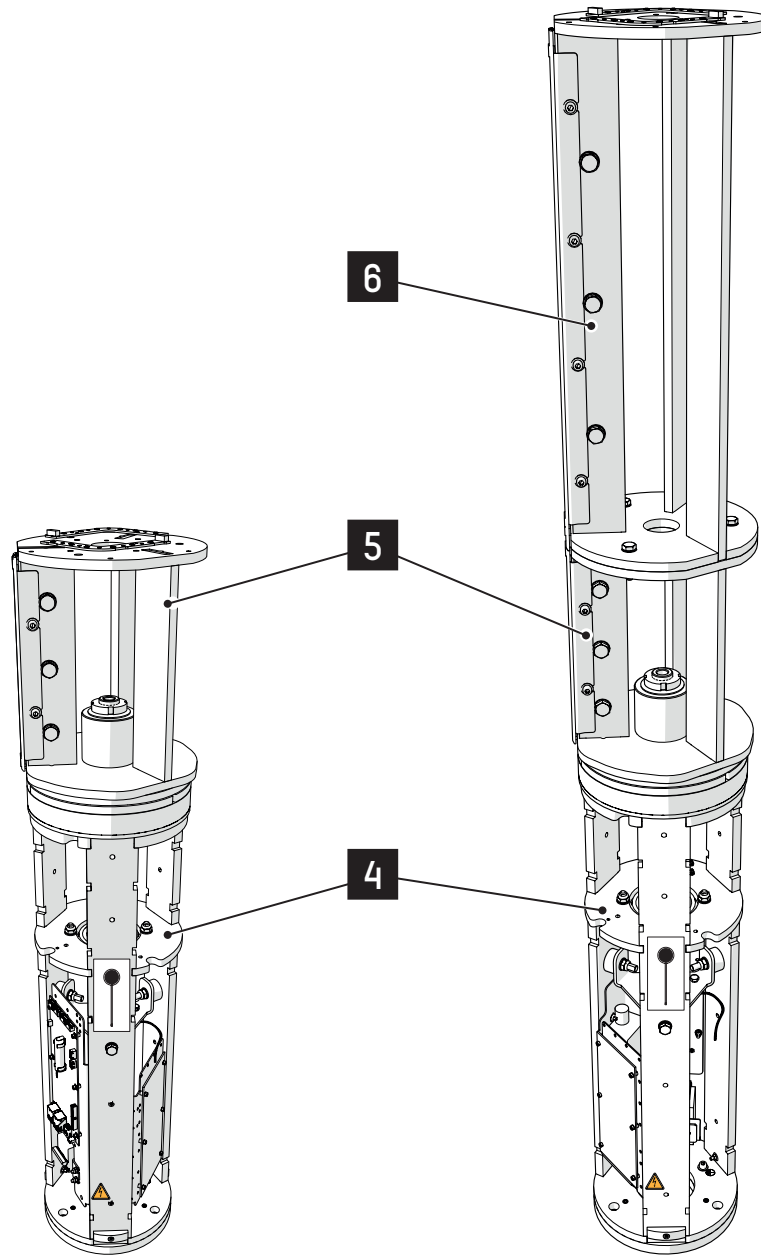


Fig. 6 - Location of internal components - 1

REF.	DESIGNATION
1	Mechanical frame (fixed)
2	Mobile frame, lower obstacle
3	Mobile frame, upper obstacle

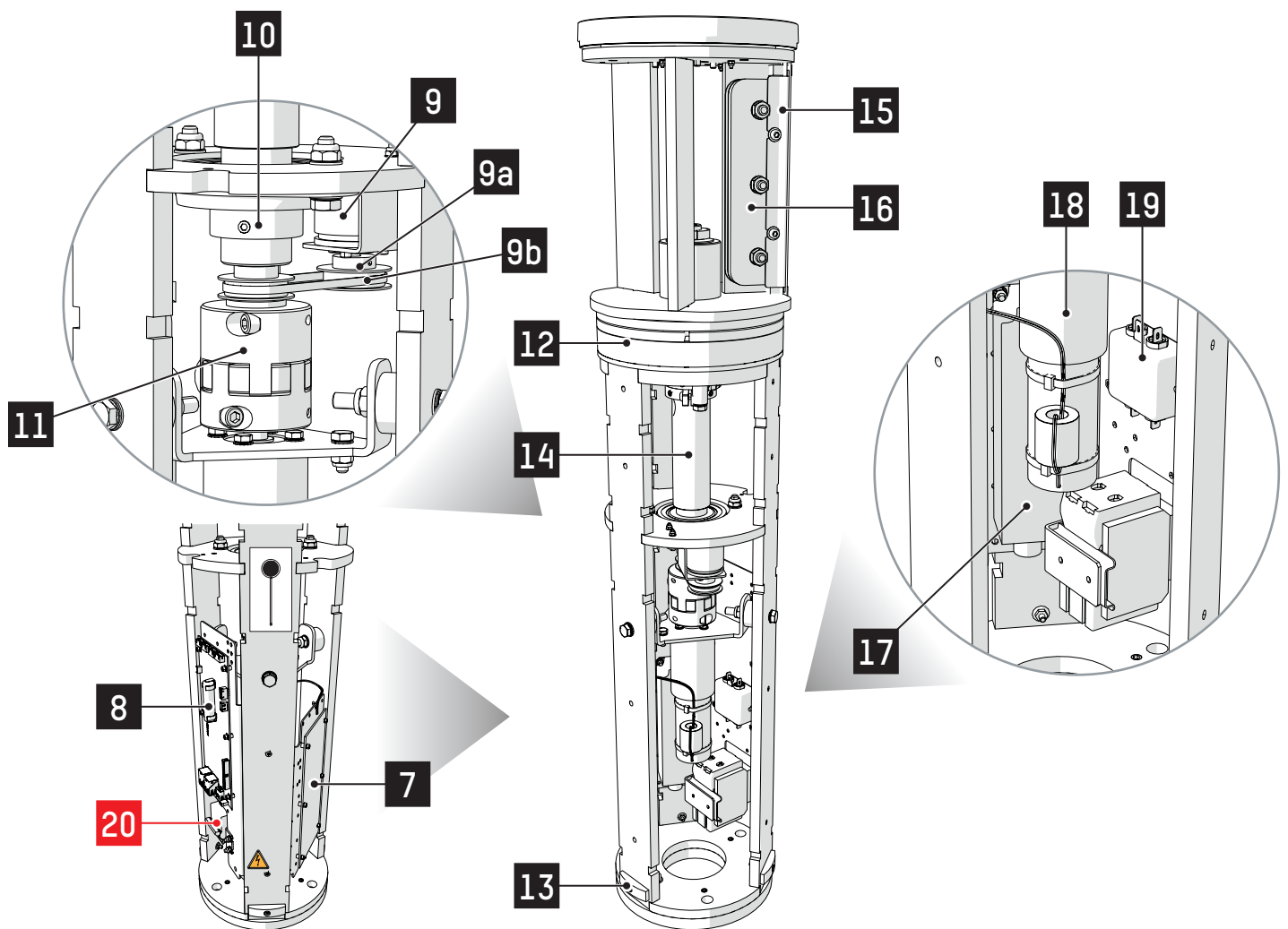


Fig. 7 - Location of internal components - 2

REF.	DESIGNATION
7	Motorization + I/O circuit board AS 1611
8	CPU circuit board AS 1190
9	Magnetic encoder
9a	Pulley
9b	Toothed belt
10	Bracket
11	Elastic coupling
12	Electromagnetic brake
13	Housing pad
14	Drive shaft
15	Kit IP 44
16	Mobile obstacle fixing clamp
17	Power supply 24 VDC - 3.75A
18	Geared motor 24 VDC
19	EMC filter
20	Main circuit breaker

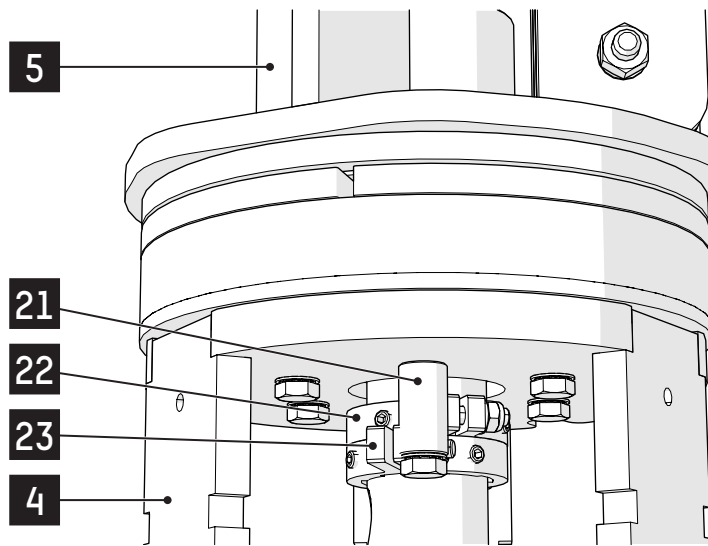


Fig. 8- Location of internal components - 3

REF.	DESIGNATION
4	Mechanical frame (fixed)
5	Mobile frame, lower obstacle
21	Fixed stop
22	Upper stop ring
23	Lower stop ring

4. INSTALLATION



THE INSTALLATION WORK MUST BE CARRIED OUT IN ACCORDANCE WITH LOCAL STANDARDS, SAFETY INSTRUCTIONS (⇒ PAGE 4) AND THE INSTALLATION PLAN BELOW.

4.1. POSITIONING OF THE DEVICE FOR MOBILE OBSTACLE CORRECT ORIENTATION

For helping to correctly mounting the device, a sticker is present on the fix frame showing the mobile obstacle orientation at rest.

The sticker looks like this:

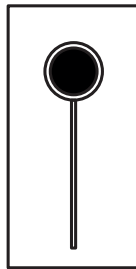


Fig. 9 - Sticker correctly applied

And is found here:

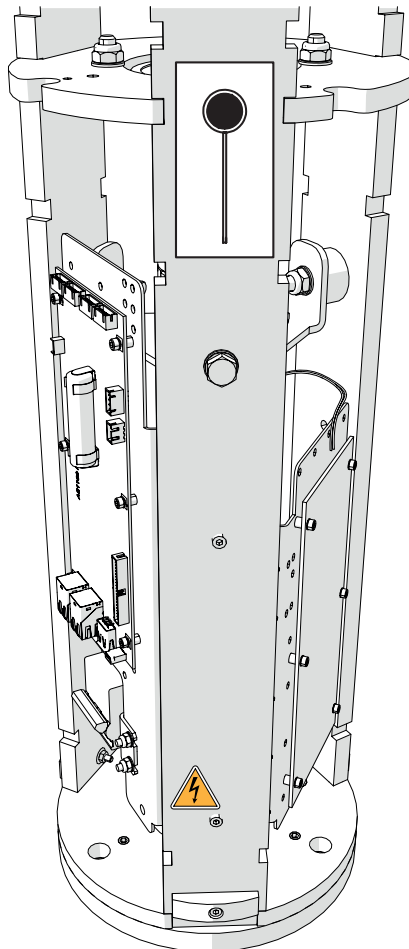


Fig. 10 - Location sticker correctly applied

4.2. INSTALLATION PLAN

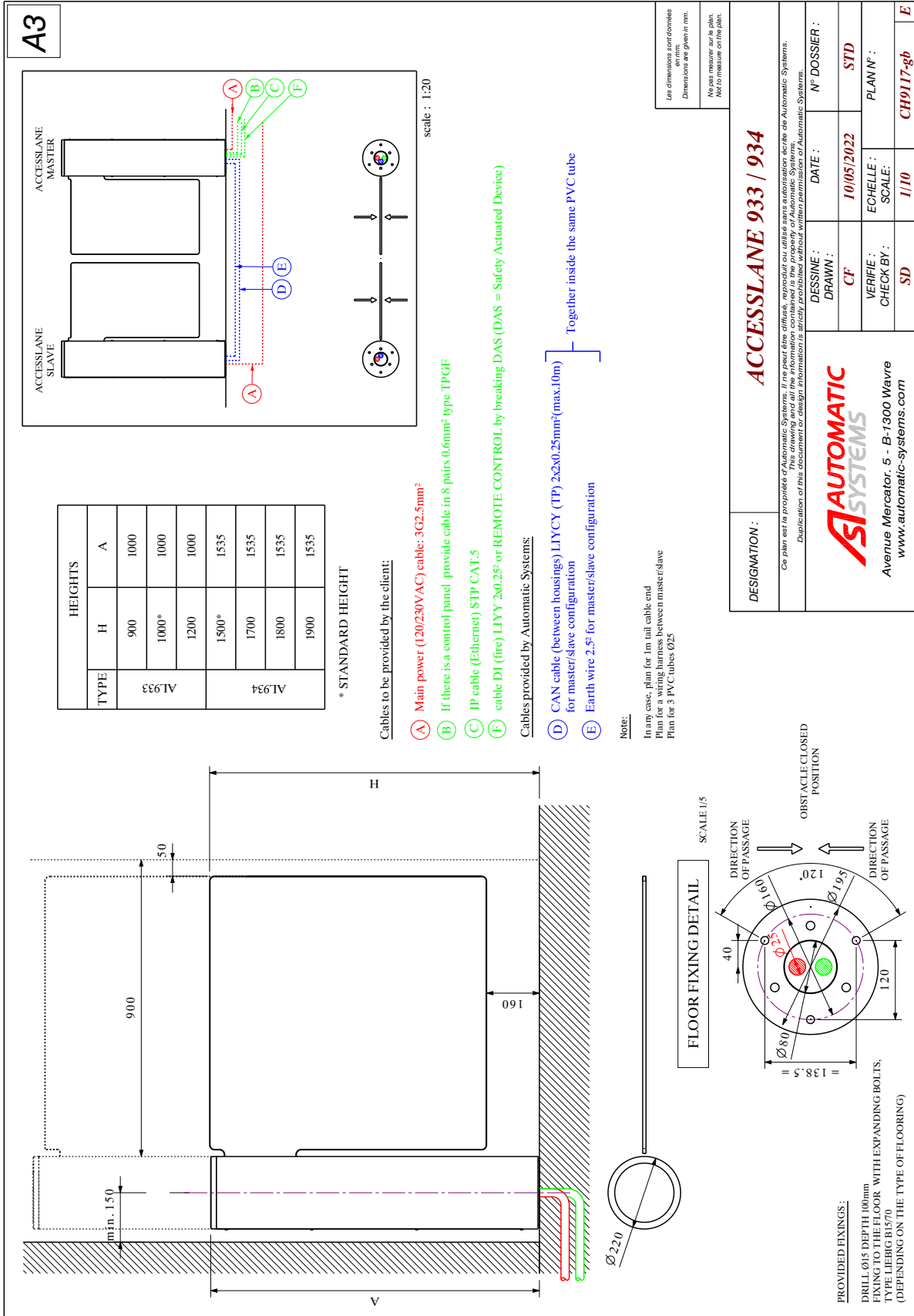


Fig. 11 - Installation plan

4.3. STORAGE

Prior to installation, avoid any impact on the equipment and leave it in its original packaging in a dry place, protected from dust, heat and the weather (see also “Technical Specifications”, page 8).

Storage temperature range: -30 to +80 °C.

4.4. ON-SITE WORK PREPARATION



THE FLOOR ON WHICH THE EQUIPMENT WILL BE INSTALLED MUST BE OF CONCRETE OR ANOTHER NON-COMBUSTIBLE MATERIAL.

4.5. RECOMMENDED TOOLS

- Wrench or screwdriver TORX - N° 20 (T20, TX20, etc.) ;
- Electrician's toolkit: screwdrivers, pliers, etc. (For electrical connection);
- Mallet (For fastening the equipment to the floor);
- Drill + drill bits suitable for the type of floor, up to 15 mm dia.;
(For fastening the equipment to the floor)
- Ratchet wrench + articulated with dial + extension + socket set;
(For fastening the equipment to the floor and various other operations)
- Cat 5 shielded Ethernet cable + RJ45 connector + crimping pliers;
(For connecting the lane to the network, if necessary).
- PC + mini USB or RJ45 Ethernet cable or supervision panel. (Optional);
(For configuration of the lanes)
- Circlip pliers;
- Set of Allen keys.

4.6. INSTALLING THE EQUIPMENT



**THE EQUIPMENT MUST BE FASTENED TO THE FLOOR BEFORE MAKING IT ACCESSIBLE TO USERS!
AUTOMATIC SYSTEMS CANNOT BE HELD RESPONSIBLE FOR ANY ACCIDENT OR DAMAGE TO EQUIPMENT DUE TO IMPROPER FIXING TO THE FLOOR.**



The equipment can be handled using a trolley. In all cases, the lifting force must be applied to the base frame (⇒ Ref. 4, Chap. 3.5.2, page 10).

To fasten the unit to the floor, Automatic Systems provides M10 expansion bolts to be tightened with a minimum torque of 50 Nm. The location of the fixing points is shown on the installation drawing, Chap. 4.2, page 14



HOWEVER, IT IS ESSENTIAL TO ADAPT THE FASTENERS AND THE FASTENING PROCEDURE TO THE ENVIRONMENT AND THE TYPE OF SURFACE ON WHICH THE UNIT WILL BE MOUNTED. FURTHERMORE, IT IS ESSENTIAL THAT THE WORK BE APPROVED BY AN ENGINEER SPECIALIZED IN THE FIELD.

1. Mark the fixing points of the equipment on the floor, referring to the installation drawing, Chap. 4.2, page 14.



Drill + drill bits suitable for the type of floor + mallet (if necessary).

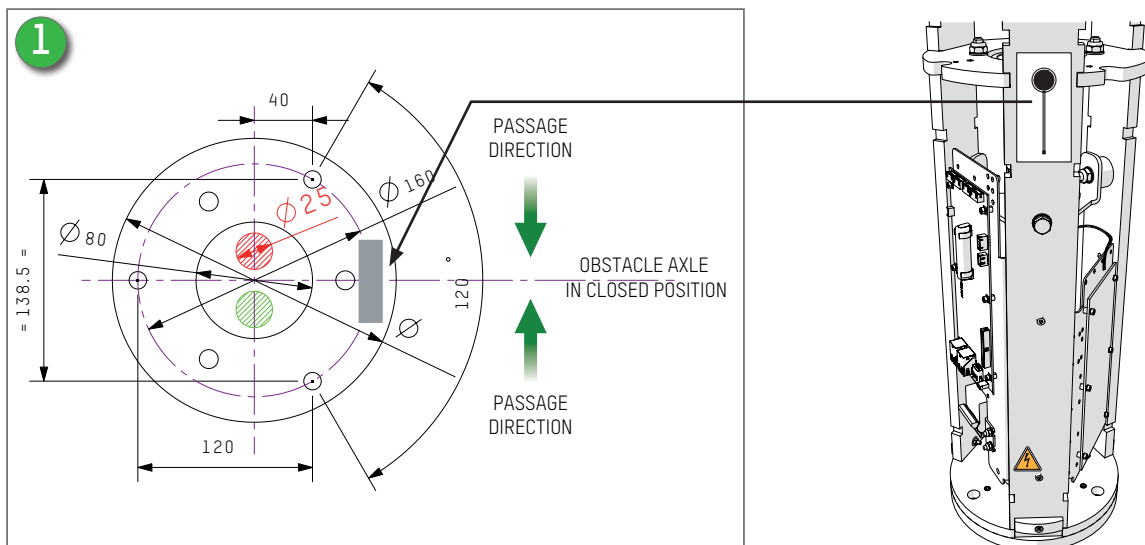


Fig. 12 - Correct orientation of the gate on installation



For added convenience, the anchor base can be used when marking the fixing points of the equipment. **However, it should never be used as a drill template.**

2. Drill the three fixing points of the equipment into the floor using a concrete drill, 15 mm dia., to a depth of 100 mm.

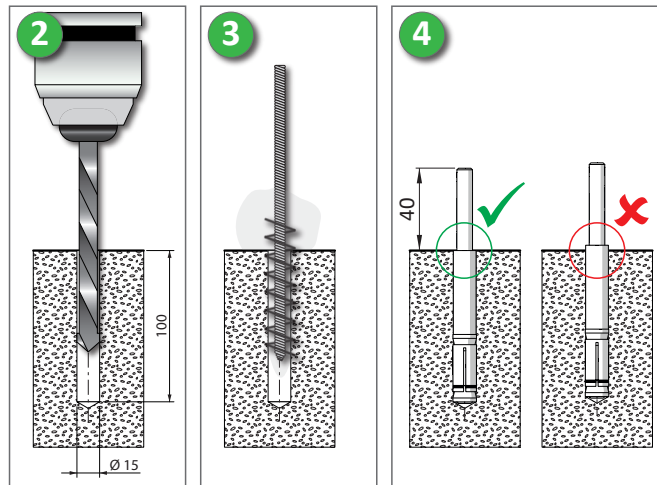


Fig. 13 - Dusting

3. Remove dust from the drilled holes.
4. Into each hole insert an expanding dowel supplied by Automatic Systems, making sure to first remove the washer and nut of each dowel. The threaded stem of the dowel should project 40 mm above the finished floor level.
5. Arrange the anchor base and the equipment on the expanding dowels, making sure to align it as shown on the installation drawing page 14 so that the mechanism is easily accessible. Put the washers and nuts of the expanding dowels back in place without tightening them.

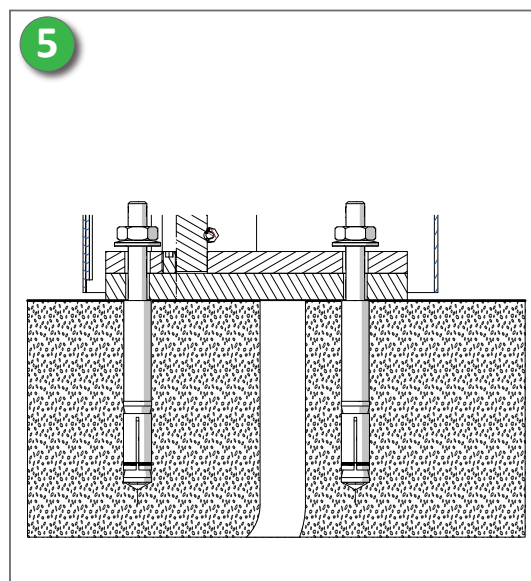


Fig. 14 - Anchor base

6. Adjust the base of the equipment (horizontality and verticality) using the three set screws located near the points for fastening the equipment to the floor.



Set of Allen keys.

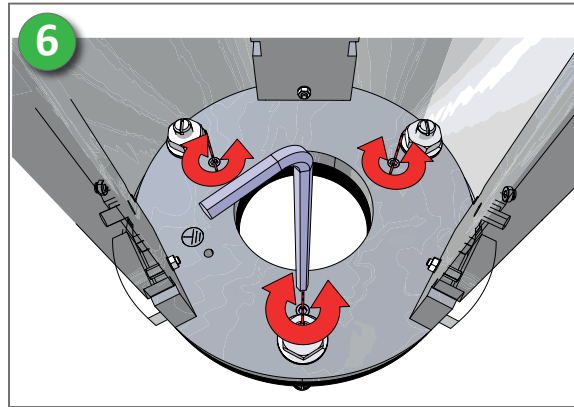


Fig. 15 - Adjustment of the base

7. After adjusting the base, properly fasten the equipment.



Flat spanner set or ratchet wrench with extension and 19 socket.

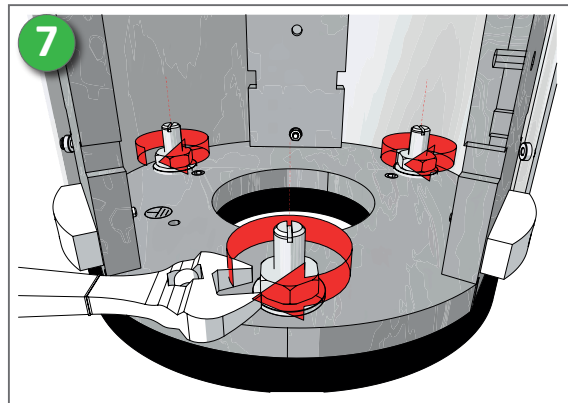


Fig. 16 - Fixation

4.7. ELECTRICAL CONNECTIONS



Electrician's toolkit: screwdriver, cutting pliers, stripping pliers, etc.

The connections must be made in accordance with the installation drawings (⇒ page 14) and electrical diagrams (⇒ page 37), which remain the reference.

The power and control cables as defined on the installation drawing are the responsibility of the user.

The control cables must be separated from the power cables to avoid interference.



Prior to connecting the power supply, it is essential to make a ground connection using a cable with a min. cross section of 2.5 mm².

Do not connect to a floating network or to a high-impedance earthed industrial distribution network.

1. Connect the power cable to the main circuit breaker. The ground cable is connected to the ground terminal located right next to the main circuit breaker.
2. If the equipment is connected to the computer network:
 - Connect the Ethernet cable (RJ45) to the connector CN13 (ETH) on board AS 1190.
3. For a passage configuration of the master-slave type (wide lane with two equipment units mounted face-to-face):
 - Connect cable W4 to the CN8 (CAN) connectors of the AS 1161 boards.
 - The ground wire between the two fixed frames.

4.8. MOUNTING THE OBSTACLE

To facilitate the mounting of the obstacle, Automatic Systems has developed a specific packaging, which allows a lower obstacle to be mounted by a single person. For mounting an upper obstacle, we advise that steps 2 to 5 are performed with the assistance of a second person.

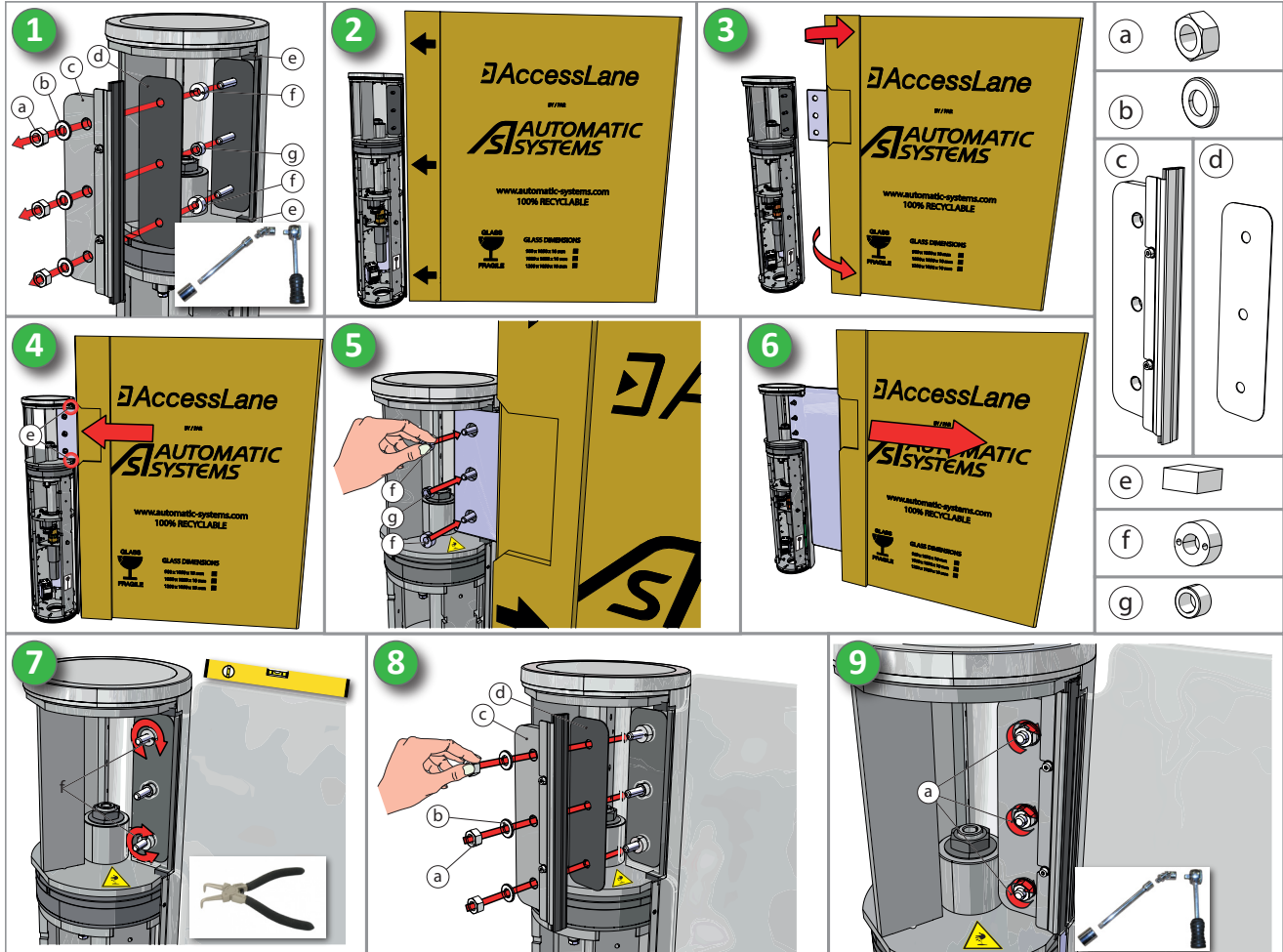


Fig. 17 - Mounting the obstacle

1. Disassemble the obstacle fastening clamp and keep the elements near the equipment.
2. Position the obstacle so that the flaps giving access to the obstacle fastening points point towards the fastening points located on the mobile frame.
3. Remove the stickers keeping the flaps in place and push back the latter on both sides of the packaging, thereby releasing the obstacle fastening points.
4. Position the obstacle on the fastening screws, taking care not to damage the lower and upper gaskets.



The gaskets (e) have been placed into a little plastic bag, fixed to the frame.

5. Slip the eccentric bushes onto upper and lower fastening points until they are properly integrated with the mobile obstacle. Place the spacer on the central point.
6. Remove the packaging either by dragging it over the floor or by opening it completely.
7. Using circlip pliers, adjust the horizontality/verticality of the obstacle by acting on the two eccentric bushes.
8. Put the obstacle fastening elements back in place.
9. Tighten the nuts. (refer to the tightening torque table, Chap. 6.2, page 23).

4.9. COMMISSIONING



If the equipment was stored with power off and ambient temperature below 15 °C (5 °F), it is important to allow it to warm up for 30 minutes to 1 hour before powering up.

Trip the main circuit breaker (⇒ Ref. 20, Ch. 3.6.) to power up the equipment.

When power is applied, the obstacles will go through an opening and closing cycle to determine the opening end positions of the equipment.

During initialization, the status lights are white.

Configure the lane via the Maintenance Interface (obstacle dimensions, opening speed, etc.) ⇒ see specific manual.

Perform several openings and closings using the available controls (reader, remote control, etc.) and check the obstacle position in the open and closed positions.

Check that the obstacles open completely when an evacuation order is issued.

Pass through several times and check that the pictograms and buzzer operate properly.

Check that the optional equipment (monitoring panel, etc.) and customer-incorporated equipment (reader, etc.) is operating correctly.

5. OPERATION

5.1. OBSTACLE LOCK

The obstacle is locked in its end positions by means of an electromagnetic brake.

5.2. POSITION ENCODER

Connected to the 24 VDC motor via a pulley and belt system, an absolute magnetic encoder provides the exact position of the obstacle at any time.

5.3. SAFETY DEVICES

One safety input for connection of a safety cell, inductive loop, etc. is provided on the I/O circuit board (AS 1611).

6. MAINTENANCE



ALL MAINTENANCE WORK ON THE EQUIPMENT MUST BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS IN THE SAFETY WARNINGS IN CHAPTER 1.

THE GROUND WIRES MUST INTERCONNECT ALL MOVING METALLIC PARTS (NOT BOLTED TO THE FRAME). SPECIAL ATTENTION SHOULD BE PAID DURING DISASSEMBLY OF THESE ELEMENTS SO AS NOT TO DAMAGE THESE WIRES. IT IS IMPERATIVE TO RECONNECT THEM DURING REASSEMBLY.

6.1. RECOMMENDED TOOLS

- Wrench or screwdriver TORX - N° 20 (T20, TX20, etc.);
- Electrician's toolkit: screwdrivers, pliers, etc. (For electrical connection);
- Mallet (For fastening the equipment to the floor);
- Ratchet wrench + extension + socket set;
- PC + mini USB or RJ45 Ethernet cable or supervision panel. (Optional); (For configuration of the lanes)
- Circlip pliers;
- Set of Allen keys.
- Flat spanner set.

6.2. RECOMMENDED TIGHTENING TORQUE

Recommended torque for tightening screws and nuts, unless otherwise specified:

Type of screw	Torque (Nm)	Type of screw	Torque (Nm)
M2	0.32	M10	43
M3	1.15	M12	75
M4	2.65	M14	119
M5	5.2	M16	182
M6	8.9	M18	250
M7	14.5	M20	355
M8	22	M22	480

Fig. 18 - Tightening torque

6.3. REMOVING THE REMOVABLE PANEL



Wrench or screwdriver TORX - N° 20 (T20, TX20, etc.)

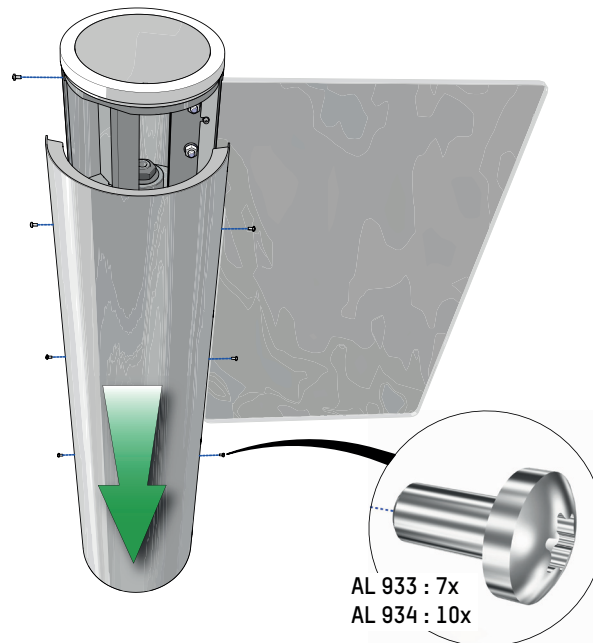


Fig. 19 - Removing the removable panel

- Remove the 7 screws holding the housing panel in place on the mechanical frame.
- Take off the panel and keep it in a safe place.



The second half of the housing cannot be removed because it is still fastened on the inside.

6.4. SWITCHING THE EQUIPMENT ON/OFF

After removing the removable panel (⇒ Chap. 6.3, page 24), you can operate the main circuit breaker (⇒ Ref. 20, Chap. 3.5):

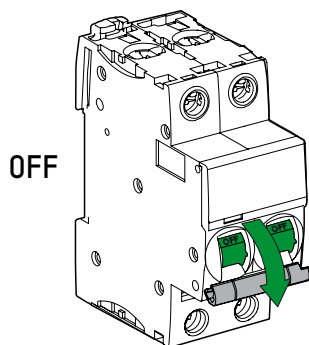


Fig. 20 - Turned off

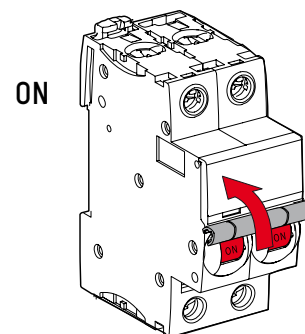


Fig. 21 - Powering on

6.5. PREVENTIVE MAINTENANCE

6.5.1. MAINTENANCE OF SURFACES

To retain the surface appearance and avoid any oxidation deposits or marks, it is strongly recommended to regularly treat the sheets with a product specially designed for this purpose.

Automatic Systems can provide an approved product under reference -/6031/00.



THE USE OF UNSUITABLE PRODUCTS CAN CAUSE EVEN GREATER DAMAGE:

- **THE USE OF HYDROCHLORIC ACID IS STRICTLY FORBIDDEN!**
- **HOT HOUSEHOLD BLEACH, EVEN DILUTED, IS STRICTLY FORBIDDEN!**

DO'S* :	DON'TS* :
<ul style="list-style-type: none"> • Use a sponge or a soft nylon brush (except for gloss or mirror polish finishes) • Brush in the direction of the polish lines • Clean using a soft, non-fluffy cloth 	<p>Use:</p> <ul style="list-style-type: none"> • Metallic brushes or sponges • Hard brushes • Brushes on gloss or mirror polish finishes • Abrasive scouring pads or powders • Chlorinated or other unsuitable products

* Source: <http://www.uginox.com/fr/node/13>.

Automatic Systems reserves the right to deny warranty coverage based on an apparent lack of maintenance.

6.6. RECOMMENDED SPARE PARTS



The items used below refer to the chap. 3.5. Location of components, page 9.

Ref.	Designation	Article N°	Quantity	MTR
7	Motorization + I/O circuit board AS 1611	0/7108/713	1	< 15 min
8	CPU circuit board AS 1190	0/7108/150_TESTE	1	< 15 min
13	Housing pad kit	E/7002/547	3	< 15 min
9b	Toothed belt	COU-E15509	1	< 15 min
17	Power supply 24 VDC - 3.75A	0/7108/482	1	< 15 min
18	Motor	MOT-E15505	1	< 25 min

For any other parts refer to the AccessLane spare parts catalogue.

6.7. ADJUSTING THE OBSTACLE CLOSING POINT

See Maintenance Interface manual.

6.8. ADJUSTING THE STOP RINGS (LIMIT SWITCHES)



Ratchet wrench with extension and 10 socket + 10 flat spanner. (or two 10 flat spanners)



The items used below refer to the chap. 3.5. Location of components, page 9.

1. Disconnect the power supply of the gate, either on the main panel or via the main circuit breaker (⇒ Chap. 6.4. Switching the equipment on/off, page 24).
2. The mechanical stop rings (**22 and 23**) determine, on coming into contact with the fixed stop (**21**), the end positions of the obstacle. If a physical obstacle were to prevent the factory-set opening (180°), the opening angle of the obstacle can be changed by repositioning either one of the stop rings.

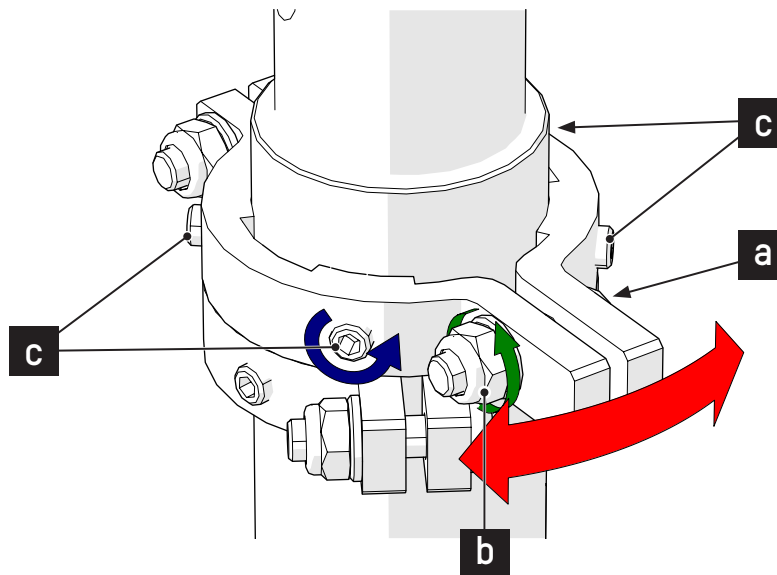


Fig. 22 - Adjusting the stop rings

3. Loosen the 4 set screws (**c**) of the stop ring to be adjusted.
4. Holding the fastening screw in place (**a**), unscrew the safety nut (**b**) of the stop ring located on the side to be adjusted, so that it can be rotated on its main axis.
5. Adjust the position of the stop ring and tighten the assembly.
6. Switch on the equipment again and watch the initialization phase to check for proper adjustment. If necessary, repeat the above operations until the desired result is obtained.

6.9. REPLACING THE OBSTACLE



Ratchet wrench with extension and 17 socket + circlip pliers.



Depending on the size of the obstacle, a second person may be required to safely perform this operation.

1. To replace an obstacle, you must first remove the removable panel (⇒ Chap. 6.3, page 24) and switch off the equipment (⇒ Chap. 6.4, page 24).

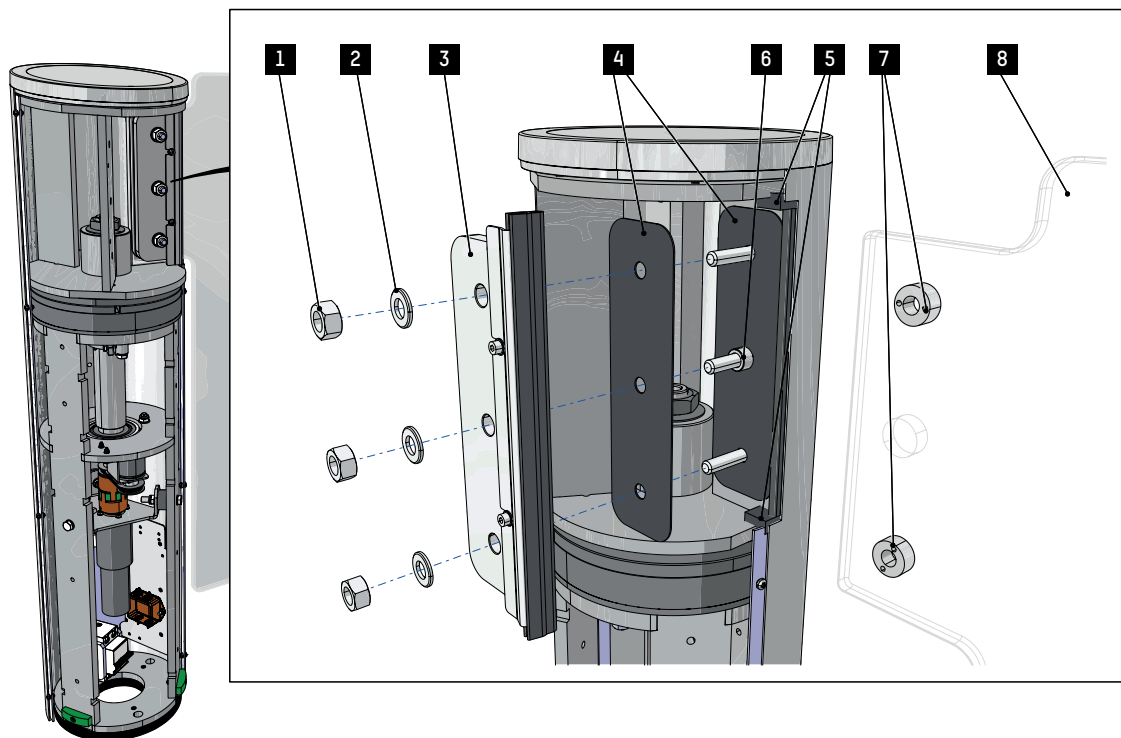


Fig. 23 - Replacing the obstacle - step 1

2. Fully unscrew the 3 nuts (1) and remove the associated washers (2), the fastening clamp (3) of the obstacle (8) and the gasket (4).
3. Take the obstacle (8) off its support, making sure not to lose the eccentric bushes (7) and the spacer (6). If necessary, remove them from the old obstacle.
4. Remove and replace both gaskets (5).



These gaskets are stuck to the mobile frame. The removed gaskets must be disposed of properly.

Refer to chap. 3.5. Location of components, page 9.

6.10. REPLACEMENT OF STATUS LIGHTS



Set of electrical screwdrivers;
Set of Allen keys;
Electrical Technical File.

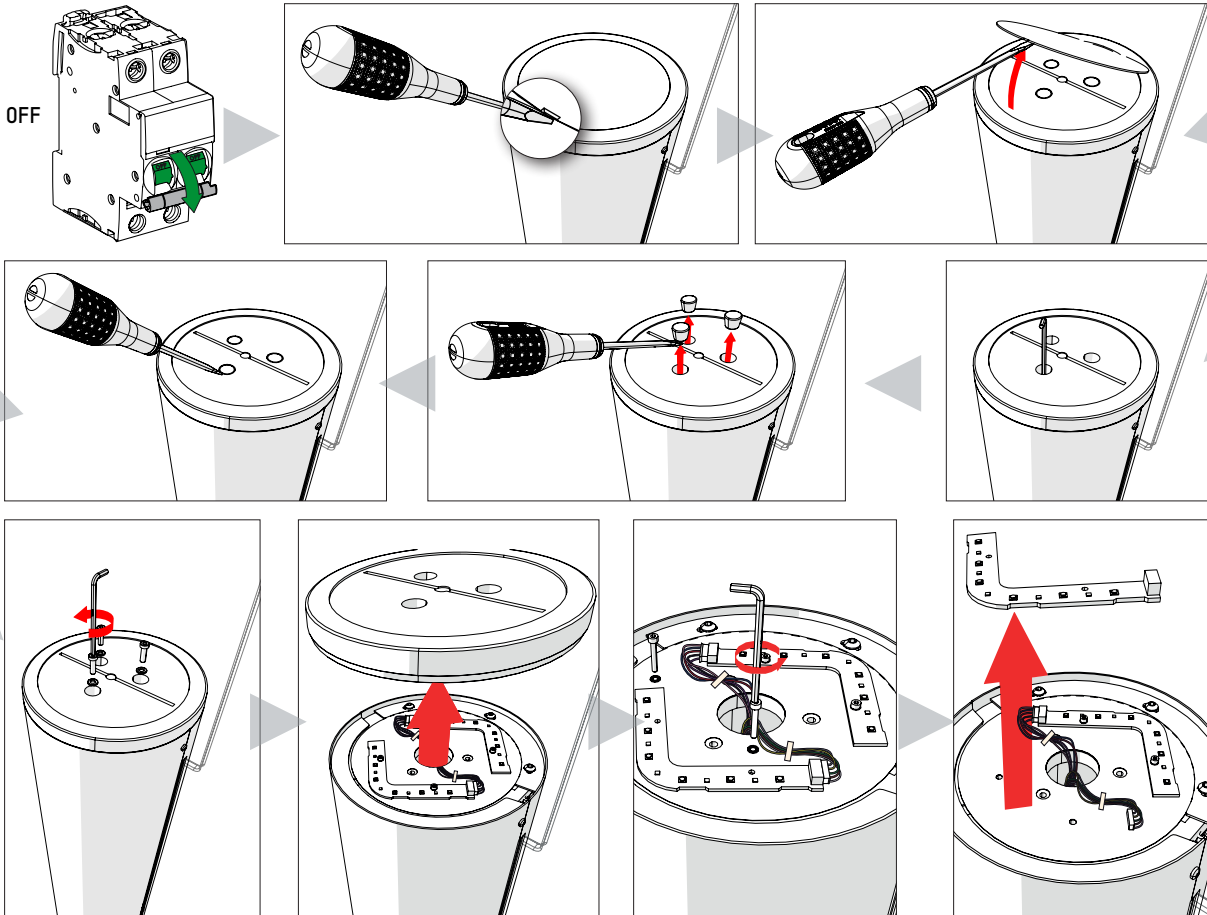


Fig. 24 - Replacement of the status lights

1. Remove the detachable panel (⇒ Chap. 6.3, page 24) and switch off the equipment (⇒ Chap. 6.4, page 24).
2. Insert a flat-head screwdriver into the recess and remove the cover panel.



The cover panel will have to be replaced during this process.

3. Remove the 3 caps that hide the screws holding the screen in place. Use the screwdriver if necessary.
4. Using an Allen key, remove the fixing screws that secure the screen and detach it.
5. Disconnect the defective status light and take it out it by removing the two screws and washers.
6. Install the new status light, secure it in place and connect it.
7. Arrange the cables of the connectors in such a way that there is a gap between the two indicators.



Use adhesive tape to secure the cables toward the top of the casing, in order to keep them out of the way of the deflector.

8. Install the screen, taking care to do so in the correct direction, (⇒ Fig. 26) and secure it with the screws and washers that were removed in point 4.

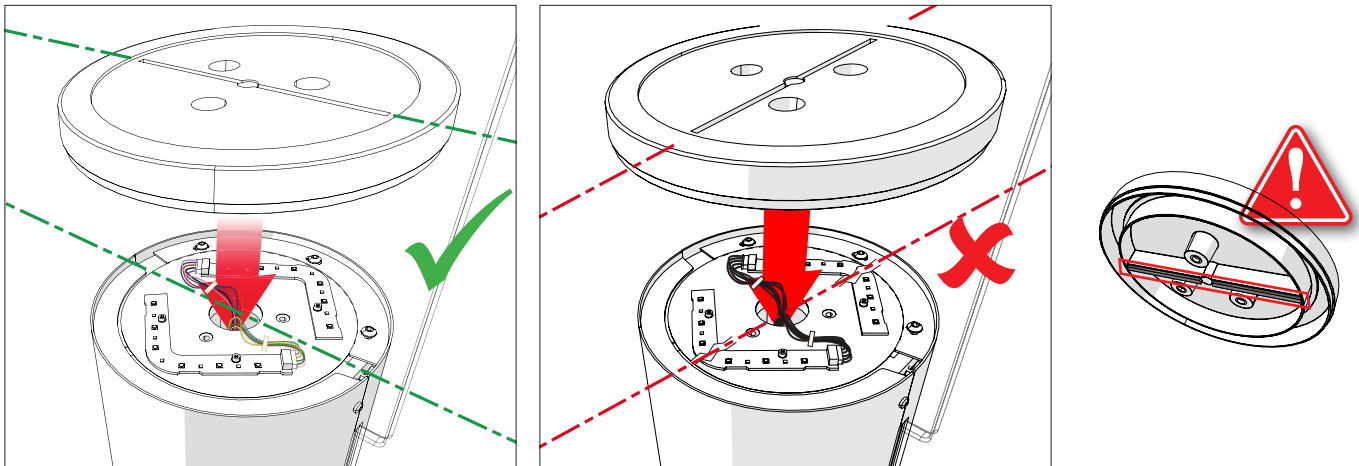


Fig. 25 - Installation of the screen

9. Fix the screen with the screws and washers removed in point 4.
10. Turn on the appliance and check that the status lights are working correctly.
11. If they are working correctly, turn the appliance off and replace the caps over the holes that hold the screen. Otherwise, please refer to Chap. 6.10.1.
12. Fit a new cover panel.
13. Turn on the power and reinsert the removable panel.

6.10.1. THE STATUS LIGHT(S) DO NOT WORK

1. If the light(s) are not working properly, remove the screen again and check the boards and wiring.
2. Repeat the procedure from point 9.

6.11. REPLACING THE MOTOR



Electrician's screwdriver set;	Plastic clamps (cable ties);
Flat spanner set or ratchet spanner with socket set;	Cable ends and crimping pliers;
Set of Allen keys;	Electrical Technical File.
Electrician's cutters;	

1. Remove the removable panel (⇒ Chap. 6.3, page 24);
2. Switch off the equipment (⇒ Chap. 6.4, page 24);
3. Remove the fasteners, nuts (**b**) and washers (**c**), from the circuit breaker assembly (**a**) to loosen the assembled parts (Fig. 26);
4. Cut the clamps holding the motor power cable all the way to the AS1611 motor control board (**CN5**). Disconnect the two motor leads from the board;
5. Disconnect the equipotential bonding cable from the motor bracket (Fig. 27);
6. Remove the motor bracket fasteners, screws (**e**) and washers (**f**) and (**g**) from the motor bracket (**d**) (Fig. 28);



If necessary, rotate the mobile frame to access the third fastening point.

7. Pull the motor firmly downwards with small twisting and tilting movements (Fig. 29);



A flathead screwdriver can be used to separate the elastic coupling and assist in the removal of the motor.

8. Once the assembly has been removed from the frame, remove the electric coupling (**h**) by unscrewing the two screws (**i**) (Fig. 30);
9. Unscrew the four screws (**k**) and remove the washers (**l**) to remove the motor (**j**) (Fig. 31);
10. Using a wire cutter, cut the two clamps holding the motor power cable and the ferrite tube (**m**) (Fig. 32);
11. Place the ferrite on the new motor and secure it in the same way as before;
12. Attach the new motor to the bracket using the washers (**l**) and screws (**k**) (reverse procedure from Point 9);
13. Replace the elastic coupling (reverse procedure of Point 8);
14. Position the assembly in the mechanical frame, vertically, with the rubber stops inside the uprights and the equipotential bonding connection point aligned with that of the frame. Push it firmly upwards until the elastic coupling components are firmly in place (reverse procedure of Point 7);



A Phillips screwdriver can be used to correctly align the three fastening points of the rubber stops with the fastening points of the frame.

15. Fasten the motor bracket to the frame using the previously removed screws (**e**) and washers (**f**) and (**g**) (reverse procedure of Point 6);
16. Reconnect the equipotential bonding cable (reverse procedure of Point 5);
17. If necessary, place ferrules on the motor cable wires and reconnect them to the AS1611 motor control board (**CN5**) Fasten the cable with clamps on the support plate; (reverse procedure of Point 4);
18. Replace the circuit breaker assembly and fasten it to the frame (reverse procedure of Point 3);
19. Turn on the power supply to the equipment (⇒ Chap. 6.4, page 24);



CAUTION!
THE EQUIPMENT WILL START MOVING TO DETERMINE THE EXTREME OPENING POSITIONS

20. Replace the removable panel (⇒ Chap. 6.3, page 24).

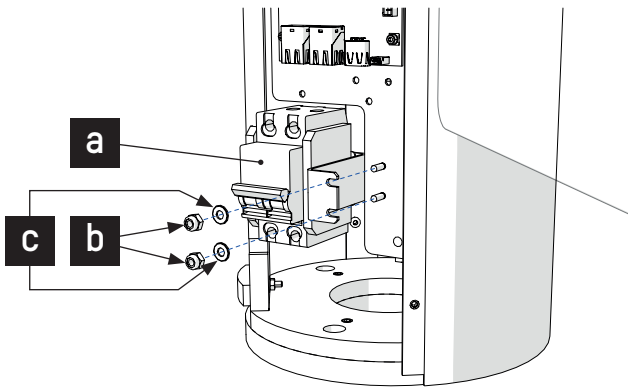


Fig. 26 - Motor replacement (Circuit breaker assembly)

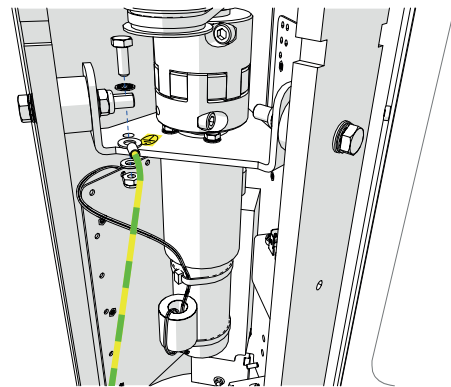


Fig. 27 - Motor replacement (Equipotential bonding)

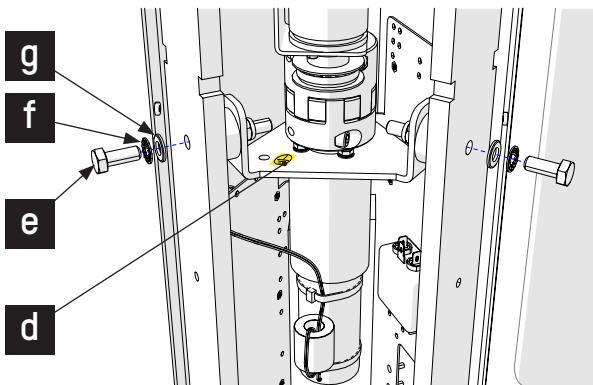


Fig. 28 - Motor replacement (Motor bracket)

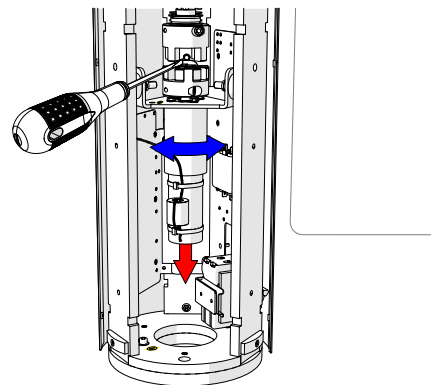


Fig. 29 - Motor replacement (Removal)

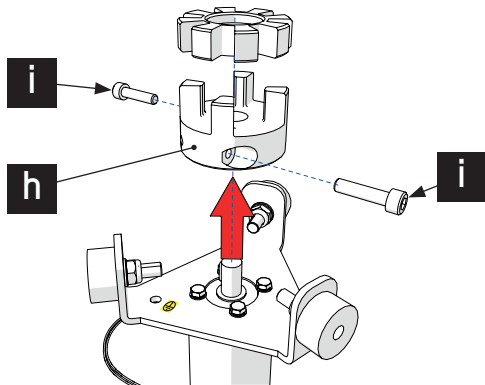


Fig. 30 - Motor replacement (Coupling removal)

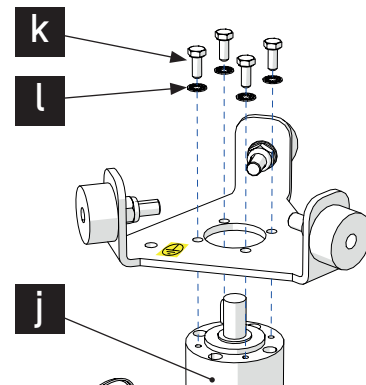


Fig. 31 - Motor replacement (Motor removal)

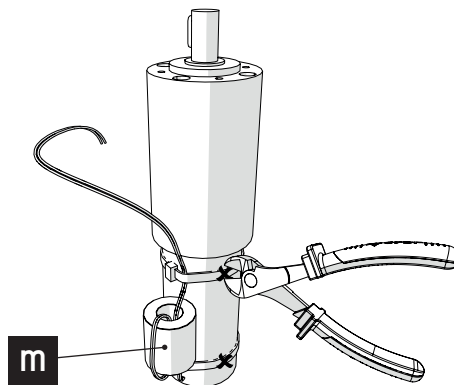


Fig. 32 - Motor replacement (Ferrite removal)

6.12. REPLACING THE BELT



Set of electrician's screwdrivers

Crimping pliers with ferrules and lugs

Set of flat spanners or ratchet spanner with socket set

Plastic clamps (cable ties)

Electrician's cutting pliers

Electrical Technical File.

1. Remove the removable panel (⇒ Chap. 6.3, page 24);
2. Switch off the equipment (⇒ Chap. 6.4, page 24);
3. Remove the fasteners, nuts **(b)** and washers **(c)** from the circuit breaker assembly **(a)** to loosen the assembled parts (Fig. 33);
4. Unscrew the two locknuts **(d)** so that the belt **(e)** can be completely slackened and separated from the two pulleys (Fig. 34);
5. Cut the clamps holding the motor power cable all the way to the AS1611 motor control board **(CN5)**. Disconnect the two motor leads from the board;
6. Disconnect the equipotential bonding cable from the motor bracket (Fig. 35);
7. Remove the motor bracket fasteners, screws **(g)** and washers **(h)** and **(i)** from the motor bracket **(f)** (Fig. 36);



If necessary, rotate the mobile frame to access the third fastening point.

8. Pull the motor firmly downwards until there is enough space between the elastic coupling elements to remove the belt (Fig. 37) + (Fig. 38);
9. Put the new belt in place by passing it over the elastic coupling on the motor side (Fig. 38);
10. Push the motor assembly firmly upwards until the components of the elastic coupling are securely in place (reverse procedure of Point 8);



A Phillips screwdriver can be used to correctly align the three fastening points of the rubber stops with the fastening points of the frame

11. Fasten the motor bracket to the frame using the previously removed screws **(g)** and washers **(h)** and **(i)** (reverse procedure of Point 7);
12. Position the belt correctly on the two pulleys and tension it. Once the belt tension has been adjusted, screw on the two brake nuts **(d)** (reverse procedure of Point 4);
13. Reconnect the equipotential bonding cable (reverse procedure of Point 6);
14. Reconnect the two motor wires of the AS1611 motor control board **(CN5)** respecting the polarity and fasten the cable with clamps on the electronic support (reverse procedure of Point 5);
15. Replace the circuit breaker assembly and fasten it to the frame (reverse procedure of Point 3);
16. Turn on the power supply to the equipment (⇒ Chap. 6.4, page 24);



CAUTION!

THE EQUIPMENT WILL START MOVING TO DETERMINE THE EXTREME OPENING POSITIONS

17. Replace the removable panel (⇒ Chap. 6.3, page 24).

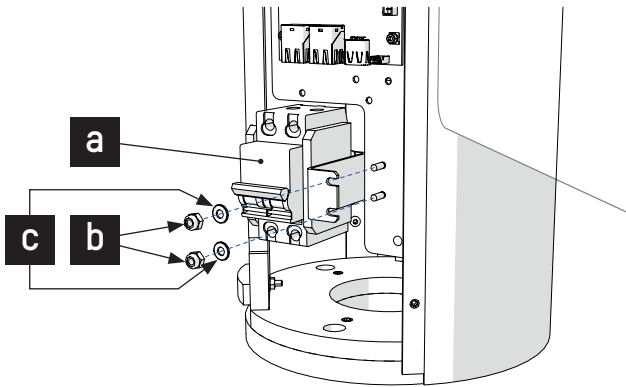


Fig. 33 - Belt replacement (Circuit breaker assembly)

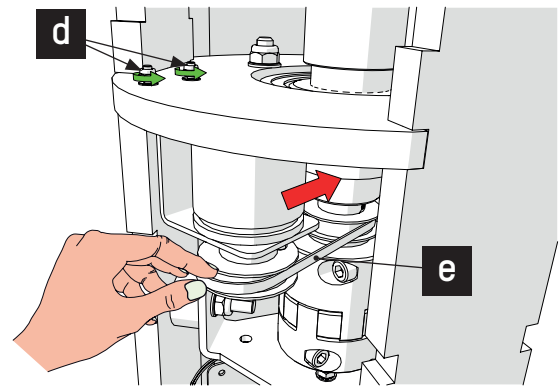


Fig. 34 - Belt replacement (Trigger)

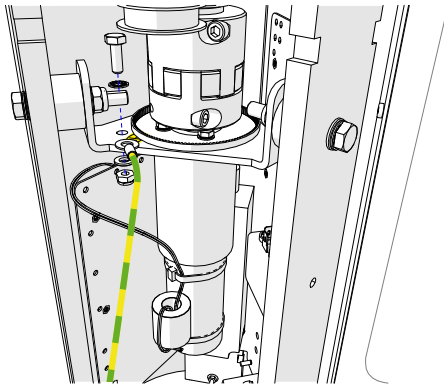


Fig. 35 - Belt replacement (Equipotential bonding)

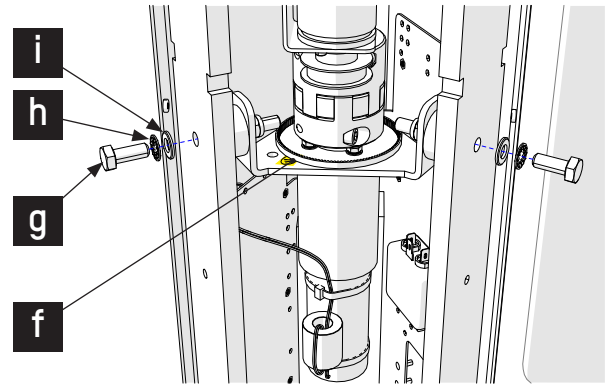


Fig. 36 - Belt replacement (Motor bracket)

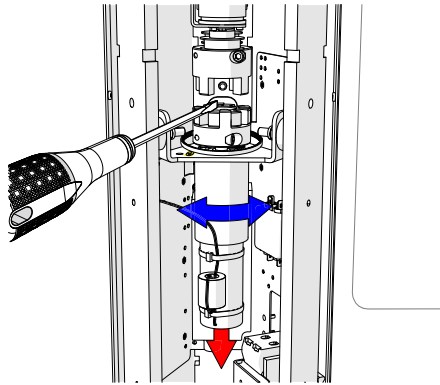


Fig. 37 - Belt replacement (Motor)

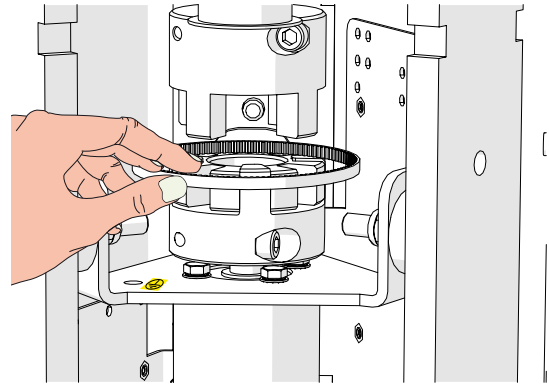


Fig. 38 - Belt replacement (Replacement)

6.13. REPLACING THE ELASTIC COUPLING



Electrician's screwdriver set

Plastic clamps (cable ties)

Set of flat spanners or ratchet spanner with socket set

Electrical Technical File

Electrician's cutting pliers

1. Remove the removable panel (⇒ Chap. 6.3, page 24);
2. Switch off the equipment (⇒ Chap. 6.4, page 24);
3. Remove the fasteners, nuts (**b**) and washers (**c**), from the circuit breaker assembly (**a**) to loosen the assembled parts (Fig. 39);
4. Cut the cable ties holding the motor power cable all the way to the AS1611 motor control board (**CN5**). Disconnect the two motor leads from the board;
5. Disconnect the equipotential bonding cable from the motor bracket (Fig. 40);
6. Remove the motor bracket fasteners, screws (**g**) and washers (**h**) and (**i**) from the motor bracket (**f**) (Fig. 41);



If necessary, rotate the mobile frame to access the third fastening point.

7. Pull the motor firmly downwards until there is sufficient space between the components to remove each component from the coupling (Fig. 42);
8. To remove each metal part of the elastic coupling (**h1** and **h3**), unscrew the screws (**i**) (two per metal part) (Fig. 43);
9. Insert the new components (reverse procedure from Point 8);
10. Push the motor assembly firmly upwards until the components of the elastic coupling are securely in place (reverse procedure of Point 7);



A Phillips screwdriver can be used to correctly align the three fastening points of the rubber stops with the fastening points of the frame.

11. Fasten the motor bracket to the frame using the previously removed screws (**g**) and washers (**h**) and (**i**) (reverse procedure of Point 6);
12. Reconnect the equipotential bonding cable (reverse procedure of Point 5);
13. If necessary, place ferrules on the motor cable wires and reconnect them to the AS1611 motor control board (**CN5**) Fasten the cable with clamps on the support plate; (reverse procedure of Point 4);
14. Replace the circuit breaker assembly and fasten it to the frame (reverse procedure of Point 3);
15. Turn on the power supply to the equipment (⇒ Chap. 6.4, page 24);



CAUTION!

THE EQUIPMENT WILL START MOVING TO DETERMINE THE EXTREME OPENING POSITIONS

16. Replace the removable panel (⇒ Chap. 6.3, page 24).

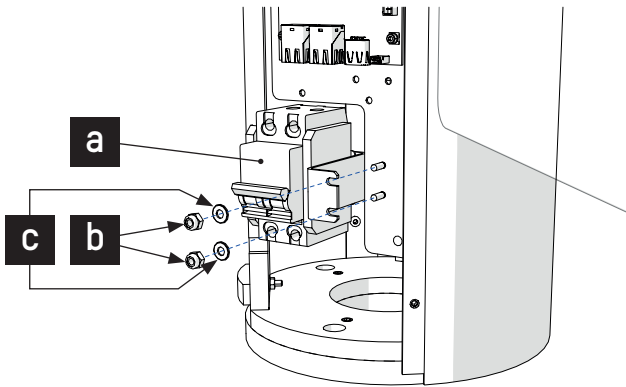


Fig. 39 - Coupling replacement (Circuit breaker assembly)

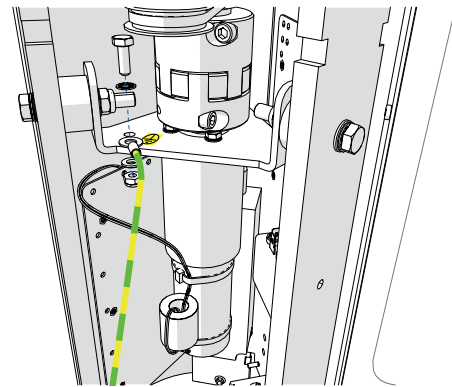


Fig. 40 - Coupling replacement (Equipotential bonding)

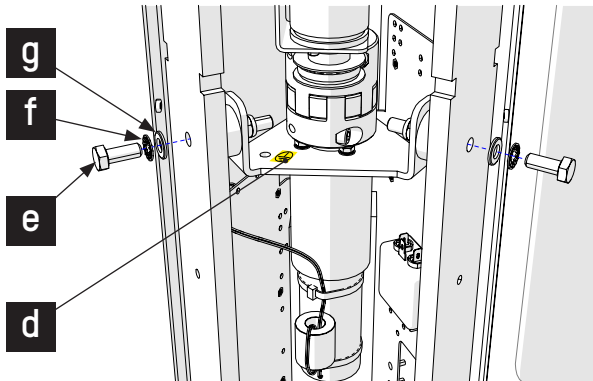


Fig. 41 - Coupling replacement (Motor bracket)

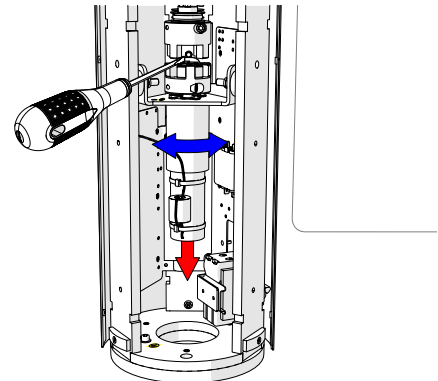


Fig. 42 - Coupling replacement (Motor)

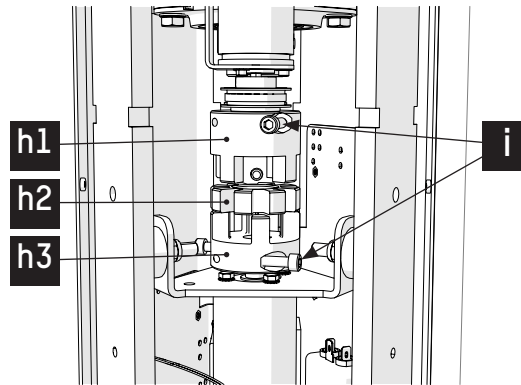


Fig. 43 - Motor replacement (Coupling removal)

6.14. REPLACING THE 24 VDC POWER SUPPLY



Electrician's screwdriver set;
Set of Allen keys;
Electrician's cutting pliers;
Crimping pliers with ferrules and lugs;

8" tube screwdriver;
Plastic clamps (cable ties);
Electrical Technical File.

1. Remove the removable panel (⇒ Chap. 6.3, page 24);
2. Switch off the equipment (⇒ Chap. 6.4, page 24);
3. Remove the fasteners, nuts (**b**) and washers (**c**), from the circuit breaker assembly (**a**) to loosen the assembled parts (Fig. 39);
4. Cut the clamps holding the power cable all the way to the AS1611 motor control board (**CN2**).
Disconnect the two power supply wires from the board;
5. Cut the clamps holding the power supply cable all the way to the lamp and disconnect it.

- Remove the power supply from the support plate by unscrewing the two fastening screws (d) + locknuts (f) + flat washers (e) (Fig. 45);



A tube 8 screwdriver needs to be used for this operation.

If the power supply is too difficult to remove, unscrew the motor bracket assembly.

- Fasten the new power supply to the support plate (reverse procedure from Point 6);
- If necessary, place crimping lugs on the power supply cables and connect to the lamp (reverse procedure from Point 5);
- If necessary, place ferrules on the power supply cable wires and connect to the AS1611 motor control board (CN2) (reverse procedure from Point 4);
- Replace the circuit breaker assembly and fasten it to the frame (reverse procedure of Point 3);
- Turn on the power supply to the equipment (⇒ Chap. 6.4, page 24);



CAUTION!

THE EQUIPMENT WILL START MOVING TO DETERMINE THE EXTREME OPENING POSITIONS

- Replace the removable panel (⇒ Chap. 6.3, page 24).

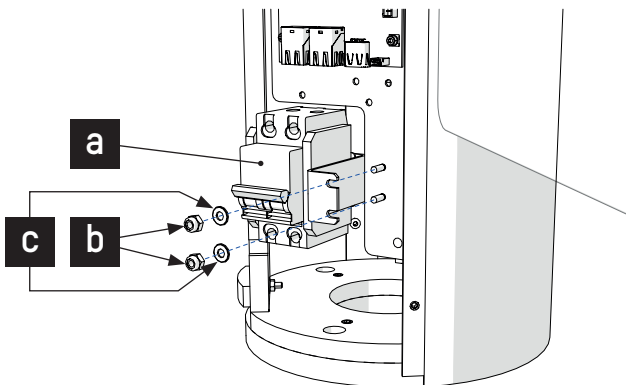


Fig. 44 - Power supply replacement (Circuit breaker assembly)

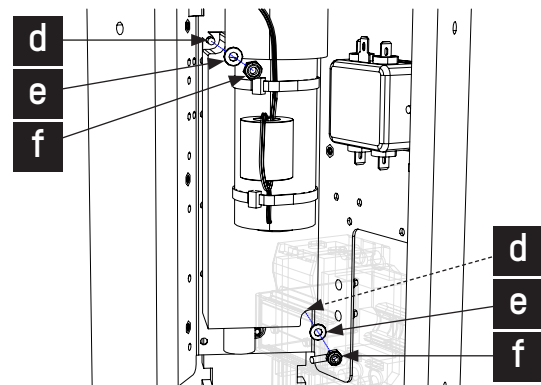


Fig. 45 - Power supply replacement (fastening points)

6.15. MALFUNCTIONS AND REMEDIES

This product has been designed so that a self-test can be carried out.

The result of this self-test is visible in the States page of the Maintenance Interface.

⇒ Refer to the dedicated manual.

6.16. DISPOSAL / DESTRUCTION

If the equipment is not going to be used for a long period, it is recommended to:

Store it in the same conditions as before the installation (⇒ Chap. 4.3, page 15).

Leave it powered on, to maintain the charge of the battery of the CPU board (AS1190).

When the equipment is taken out of service, dispose of the various components of the machine in the appropriate manner (metal parts, electronic components, etc.) according to the regulations in effect.

7. ELECTRICAL DIAGRAMS

See the **Electrical Technical File** supplied with the device or available via the link below:



[link](#)

8. EC DECLARATION OF CONFORMITY**EC declaration of conformity**

We, undersigned,

**AUTOMATIC SYSTEMS s.a.
Avenue Mercator, 5
B-1300 WAVRE
BELGIUM**

Herewith declare that the following machine

Swing gate

AccessLane 933 (AL 933)

AccessLane 934 (AL 934)

is 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 (Restriction of Hazardous Substances) 2011/65/EU.
- EN 12100:2010: Safety of machinery – General principles for design – Risk assessment and risk reduction (ISO 12100:2010).
- IEC 60204-1 / A1 : 2016: Safety of machinery – Electrical equipment of machines - Part 1: General requirements.
- EN 61000-6-3 / A1 : 2011: Electromagnetic compatibility (EMC). Generic standards. Emission standard for residential, commercial and light-industrial environments.
- IEC 61000-6-2 : 2016: Electromagnetic compatibility (EMC). Generic standards. Immunity standard for industrial environments.
- EN 13637 - Electrically controlled closing systems for use in escape routes.

Made in WAVRE,
Date: 21.01.2021
Name: Nicolas Péqueux
Function: R&D Director



Fig. 46 - EC Declaration



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