

# SLIMLANE

Security entrance lanes

## TECHNICAL MANUAL

*(Translated from the original French version)*

Rev. 14a • Update 05/2022



// **SlimLane**™





## TABLE OF CONTENTS

1.	General symbols . . . . .	5
2.	Terminology . . . . .	6
3.	Safety warnings . . . . .	7
4.	Description . . . . .	8
4.1.	Product range . . . . .	8
4.2.	Location of components . . . . .	10
4.3.	Location of some options . . . . .	12
5.	Installation . . . . .	13
5.1.	Site preparation work . . . . .	13
5.2.	Storing the equipment . . . . .	13
5.3.	Required tooling . . . . .	14
5.4.	Installation of the equipment . . . . .	15
5.4.1.	Floor anchoring . . . . .	15
5.4.2.	Integration of a card reader (not supplied) . . . . .	25
5.5.	Electrical Connections . . . . .	26
5.5.1.	Electrical connection of element(s) of an InLine array of lanes . . . . .	29
5.6.	First Start-Up . . . . .	30
6.	Maintenance . . . . .	31
6.1.	Switching the lane on/off . . . . .	31
6.2.	Prolonged stop/Disposal/Destruction . . . . .	31
6.3.	Preventive maintenance . . . . .	32
6.4.	Spare Parts . . . . .	34
6.5.	(Dis)assembly of the various components . . . . .	34
6.5.1.	Recommended torque . . . . .	34
6.5.2.	Kinematics panel . . . . .	34
6.5.3.	Kinematics rear cover(s) . . . . .	35
6.5.4.	Railing panels . . . . .	35
6.5.5.	Kinematic cover (access to status light) . . . . .	36
6.5.6.	Top cover of the railing (= shelf) . . . . .	37
6.5.7.	Railing/end posts . . . . .	37
6.5.8.	Railing/kinematic post . . . . .	38
6.5.9.	Mobile obstacle . . . . .	39
6.5.9.1.	Increasing the Visibility of Mobile Obstacles . . . . .	40
6.5.10.	Motor . . . . .	41
6.5.11.	Blocking electromagnet (optional) . . . . .	41
6.5.12.	Side railing pane (optional) . . . . .	42
6.5.13.	Reinforced protection cells + trolley protection (option) . . . . .	43
6.5.14.	Motherboard (CPU) . . . . .	44
6.5.15.	Power supply board . . . . .	45
6.5.16.	Input/output circuit board . . . . .	46
6.5.17.	Motorization boards . . . . .	47
6.5.18.	Orientation light . . . . .	49
6.5.19.	DIRAS detection cells . . . . .	50
6.5.20.	End post without base plate (option) . . . . .	51
6.5.21.	Kinematic central cover without status light (model for ASC operation) . . . . .	51



7.	Operation.....	52
7.1.	Powered Operation Mode .....	52
7.2.	State of Obstacles at Rest .....	52
7.3.	Operating Mode by Direction of Passage.....	52
7.4.	Passage Authorizations .....	52
7.5.	Forced open mode.....	53
7.6.	Power Failure .....	53
7.6.1.	Backup power supply - AS1665 board (optional) .....	53
7.7.	Technical Fault.....	53
7.8.	Violations .....	54
7.8.1.	“Intrusion” violation .....	54
7.8.2.	“Tailgating” violation .....	54
7.8.3.	“Wrong way” violation .....	54
7.9.	Sound and Light Alarms .....	54
7.9.1.	Orientation light .....	54
7.9.2.	Status light .....	55
7.9.3.	Sound alarm (buzzer).....	55
8.	Inserting a ServiceLane to the right of a lane.....	56
8.1.	Technical data .....	56
8.2.	Adaptations to the SL Standard lane.....	56
9.	Technical Specifications .....	57
10.	Installation plans and dimensions .....	58
10.1.	Main dimensions of a ServiceLane .....	69
11.	Wiring Diagrams .....	70
12.	Assignment of circuit board components.....	71
12.1.	DIRAS Transmitter Circuit Board AS1642 .....	71
12.2.	DIRAS Receiver Circuit Board AS1643 .....	71
12.3.	Motherboard (CPU) AS1190.....	72
12.4.	Inputs/outputs board AS1168.....	73
12.5.	AS1185 motorization circuit board .....	75
13.	EC Declaration of Conformity .....	77









## TABLE OF ILLUSTRATIONS

Fig. 1 - Terminology - Areas .....	6
Fig. 2 - Product range .....	9
Fig. 3 - Location of components (Circuit Boards) .....	10
Fig. 4 - LEFT unit .....	10
Fig. 5 - RIGHT unit .....	10
Fig. 6 - InLane intermediate kinematic post .....	10
Fig. 7 - InLane left end railing .....	10
Fig. 8 - Left-hand railing .....	11
Fig. 9 - Right-hand railing .....	11
Fig. 10 - Location of options .....	12
Fig. 11 - Drilling template assembly .....	15
Fig. 12 - Positioning of the cross braces .....	16
Fig. 13 - Layout of the templates .....	17
Fig. 14 - Markers for passage dimensions and STD/SC models .....	18
Fig. 15 - Railing post and kinematic post anchoring points - <b>STD models (long)</b> .....	18
Fig. 16 - Railing post and kinematic post anchoring points - <b>SC models (short)</b> .....	19
Fig. 17 - Anchoring points of the non-kinematic posts .....	19
Fig. 18 - Removing the drilling templates .....	20
Fig. 19 - Nylon guide assembly for SlimLane STD .....	20
Fig. 20 - Nylon guide assembly for SlimLane SC .....	20
Fig. 21 - Nylon guide assembly for 1 kinematic .....	21
Fig. 22 - Nylon guide assembly for 2 kinematics .....	21
Fig. 23 - Nylon guide assembly for non-kinematic post(s) .....	21
Fig. 24 - Insertion in resin long models - step 1 .....	22
Fig. 25 - Insertion in resin short models - step 1 .....	22
Fig. 26 - Insertion in resin long models - step 2 .....	22
Fig. 27 - Insertion in resin short models - step 2 .....	22
Fig. 28 - Nylon guide removing .....	23
Fig. 29 - Installation of the trim rings .....	23
Fig. 30 - Non-kinetic post mounting .....	24
Fig. 31 - Kinetic posts mouting .....	24
Fig. 32 - Integrating the reader in the railing .....	25
Fig. 33 - Integrating the reader on an external bracket .....	25
Fig. 34 - Shield connection .....	26
Fig. 35 - Type of cable and location .....	26
Fig. 36 - Connection between control panels .....	27
Fig. 37 - Autonomous LC connection .....	27
Fig. 38 - Central connection .....	28
Fig. 39 - Forced opening connection .....	28
Fig. 40 - Network connection .....	28
Fig. 41 - Power supply connection .....	28
Fig. 42 - Electrical connection of 'InLane' arrays of lanes .....	29
Fig. 43 - 'InLane' cable routing .....	29
Fig. 44 - Switching the lane on/off .....	31

Fig. 45 - Brake maintenance .....	32
Fig. 46 - Checking the regulated power supply voltage .....	33
Fig. 47 - Brake check .....	33
Fig. 48 - Installation/Removal of the kinematics panel .....	34
Fig. 49 - Installing/Removing the kinematics rear cover(s) .....	35
Fig. 50 - Installing/Removing railing panels .....	35
Fig. 51 - Installing/Removing the railing cover .....	36
Fig. 52 - Installing/Removing the kinematic cover .....	36
Fig. 53 - Installing/Removing top cover railing .....	37
Fig. 54 - Installing/Removing end post railing .....	37
Fig. 55 - Installing/Removing kinematic post railings .....	38
Fig. 56 - Installation/Removal of mobile obstacles .....	39
Fig. 57 - Self-adhesive checkerboard (0/6980/623) .....	40
Fig. 58 - Positioning of the checkerboard sticker .....	40
Fig. 59 - Motor Installation/Removal .....	41
Fig. 60 - Installing/Removing blocking electromagnet .....	41
Fig. 61 - Installing/removing side railing pane .....	42
Fig. 62 - DIRAS exploded view .....	43
Fig. 63 - Location and motherboard (CPU) exploded view .....	44
Fig. 64 - Location and power supply board exploded view .....	45
Fig. 65 - I/O circuit board exploded view .....	46
Fig. 66 - Motorization board location .....	47
Fig. 67 - Motorization boards exploded view .....	48
Fig. 68 - Orientation light exploded view .....	49
Fig. 69 - DIRAS railings exploded view .....	50
Fig. 70 - End post without base plate (option) .....	51
Fig. 71 - Kinematic cover without status light .....	51
Fig. 72 - Location of backup power supply .....	53
Fig. 73 - ServiceLane .....	56
Fig. 74 - Installation plan - SlimLane 940 .....	58
Fig. 75 - Installation plan - SlimLane 940 SC .....	59
Fig. 76 - Installation plan - SlimLane 950 .....	60
Fig. 77 - Installation plan - SlimLane 950 SC .....	61
Fig. 78 - Installation plan - SlimLane 950 EW .....	62
Fig. 79 - Installation plan - SlimLane 944 .....	63
Fig. 80 - Installation plan - SlimLane 944 SC .....	64
Fig. 81 - Installation plan - SlimLane 945 .....	65
Fig. 82 - Installation plan - SlimLane 945 SC .....	66
Fig. 83 - Installation plan - SlimLane InLane .....	67
Fig. 84 - Installation plan - SlimLane SC InLane .....	68
Fig. 85 - ServiceLane dimensions .....	69
Fig. 86 - DIRAS Transmitter Circuit Board AS1642 .....	71
Fig. 87 - DIRAS Receiver Circuit Board AS1643 .....	71
Fig. 88 - Motherboard (CPU) AS1190 .....	72
Fig. 89 - Inputs/Outputs Board AS1168 .....	73
Fig. 90 - AS1185 motorization circuit board .....	75
Fig. 91 - EC Declaration of Conformity .....	77

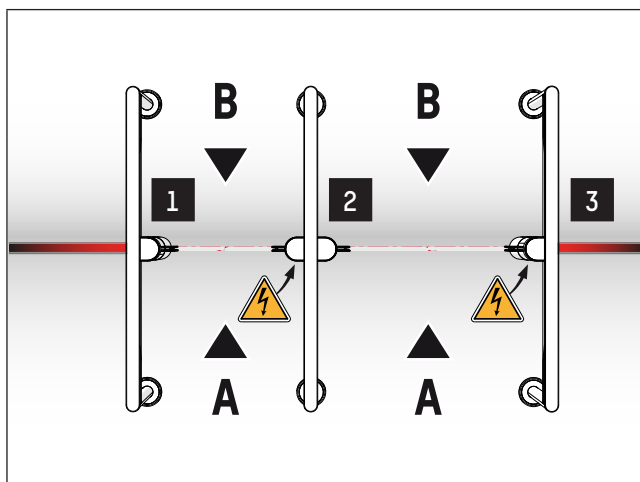
## 1. GENERAL SYMBOLS

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

	<p>This symbol is used to highlight <b>a tip</b> that may help you better understand the product.</p>
	<p>This symbol is used to highlight <b>an instruction</b> for the correct use and/or maintenance of the product.</p>
	<p>This symbol is used to highlight a risk of electric shock or electrocution.</p>
	<p>This symbol is used to highlight a risk of cutting yourself.</p>
	<p>This symbol is used to identify the main ground connection point. (Either in the form of an affixed label or directly engraved on a mechanical part)</p>
	<p>This symbol is used to indicate the tool to be used for the relevant operation.</p>
	<p>This symbol indicates that the equipment conforms to European standards and directives.</p>
	<p>This symbol indicates that the equipment must be disposed of in accordance with the applicable European Directives (WEEE 2012/19/EU).</p>

## 2. TERMINOLOGY

AS	<b>Automatic Systems.</b>
CMD	Control
DI	Digital input
DO	Digital output
I/O	Input/Output
O/S	Out of Service
MMI	Man-Machine Interface
CRA	Card reader direction A
CRB	Card reader direction B
NC	(Contact) Normally Closed (Closed in at-rest state (power off))
NO	(Contact) Normally Open (Open in at-rest state (power off))
OP	Opening
MVT	Movement
RGBW	Red – Green – Blue – White
Lane	Passage delimited by 2 units.
DIRAS	Infrared Detection Technology developed by <b>Automatic Systems.</b>
Reader	Equipment validating the user's transport ticket (not supplied by <b>Automatic Systems.</b> )
Maintenance interface	Tool that allows direct connection to a SlimLane lane, for configuration, monitoring, diagnosis and maintenance operations (⇒ see dedicated manual).
Unit	Assembly consisting of a post and a railing, delimiting one side of the lane.
Right Unit	Lane unit located on the right side in passage direction A.
Left Unit	Lane unit located on the left side in passage direction A.
Intermediate Unit	Unit separating 2 lanes. The intermediate unit is the left unit of one lane and the right unit of the other lane.
Hybrid Intermediate Unit	Unit separating two lanes of a different model (SlimLane 9xx/9yy).
Obstacle	Element creating the obstruction to passage.
Kinematic post	Element supporting the obstacle and housing the motorization and the control electronics.
Railing	Guardrail demarcating the lane and housing the detection cells.
Security	Equipment's capability to prevent violations.
Direction A	Direction of passage for which the regulated power supply (⇒ Chap. 4.2) (5) is located in the right unit. It is also the conventional direction for defining the right and left units.
Direction B	Passage in opposite direction to direction A
Safety	Protection of users during use of the equipment.



- 1 Left Unit
- 2 Intermediate Unit
- 3 Right Unit

Fig. 1 - Terminology - Areas



## 3. SAFETY WARNINGS

This manual must be available to all persons who are required to work on the equipment, such as installers, maintenance operators, end users, etc.

This equipment is intended to control access to a given place of persons with their luggage, wheelchairs or other bulky objects, ensuring the detection of any unauthorized passage.

This equipment is not to be used for another purpose without risk to the user and to 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.

Employees working in the area must have been trained in the use of automatic gates. Failure to provide such user training can result in serious accidents or injuries.

For safety reasons, children (*users shorter than 1 m*) must be supervised by an adult in the vicinity and when passing through the gate.

When the gate is used by a child accompanied by an adult, the child must precede the accompanying adult.



If regular use by children is intended, **Automatic Systems** recommends installing all the specific options designed to optimise the level of protection.

Extreme care must also be taken with animals, which must be leashed and kept under the control of their master at all times.

Do not install this equipment in an explosive area.

Do not add any non-approved accessories (contact between different metals can cause a battery effect that will reduce the corrosion resistance of the equipment).

The contractor shall comply with local regulations when installing the equipment.

All operations on the equipment must be carried out by qualified personnel. Any work on this product that is unauthorized or carried out by an unqualified technician will automatically void the manufacturer's warranty.

Access to the mechanism must be reserved for staff who are aware of the electrical and mechanical risks incurred in the case of negligent handling. These personnel are required to lock the access to the mechanism after the intervention.

For any operation that does not require the equipment to be powered up, turn off the power at the distribution panel or at the switch (⇒ Chap. 4.2) (item 6).

Any internal component that is likely to conduct electricity or that can move 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 a "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.

## 4. DESCRIPTION

### 4.1. PRODUCT RANGE



Installation in array (group of several lanes of identical or different widths) is possible.

600 mm lane	
<p><b>SlimLane 940</b></p> 	<p><b>SlimLane 940 SC</b></p> 
900 mm lane	
<p><b>SlimLane 950</b></p> 	<p><b>SlimLane 950 SC</b></p> 
550 mm lane	
<p><b>SlimLane 944</b></p> 	<p><b>SlimLane 944 SC</b></p> 

2 x 550 mm lanes	
<p><b>SlimLane 945</b></p>  <p>Railings not supplied!</p>	<p><b>SlimLane 945 SC</b></p>  <p>Railings not supplied!</p>
550 mm lanes	1200 mm lane
<p><b>SlimLane 944 / 944 SC InLane</b></p> 	<p><b>SlimLane 950 EW</b></p>  <p>Not available in SC version!</p>
900 mm lane	550, 600 or 900 mm lane
<p><b>ServiceLane</b></p>  <p>To terminate an array of SL 9xx lanes with a PRM type passage. Not compatible with SlimLane SC products. No DIRAS - Height of 900/1000 or 1200 mm!</p>	<p><b>SlimLane 9xx SC EP (with End Post) (Option)</b></p>  <p>Not available in STD version (long trunks)!</p>

Fig. 2 - Product range

## 4.2. LOCATION OF COMPONENTS

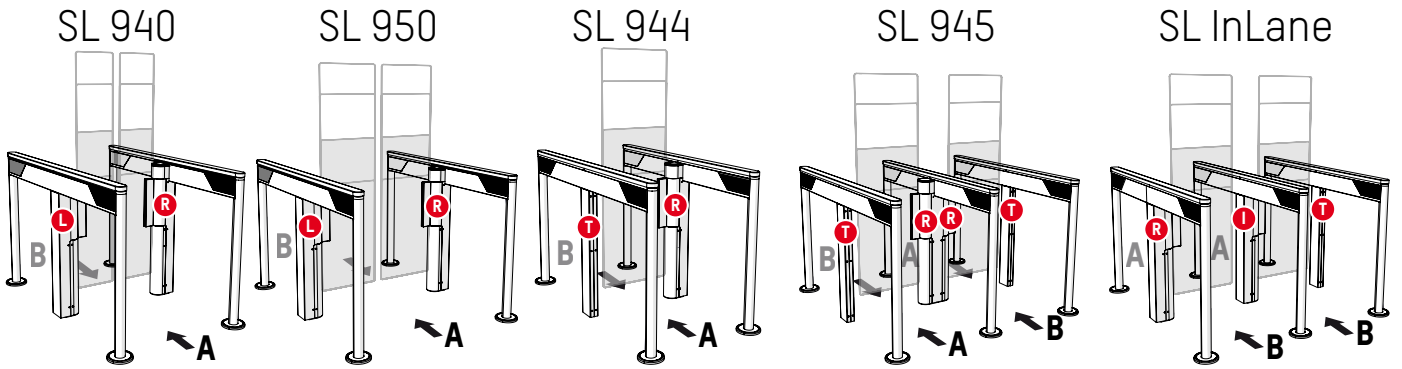


Fig. 3 - Location of components (Circuit Boards)

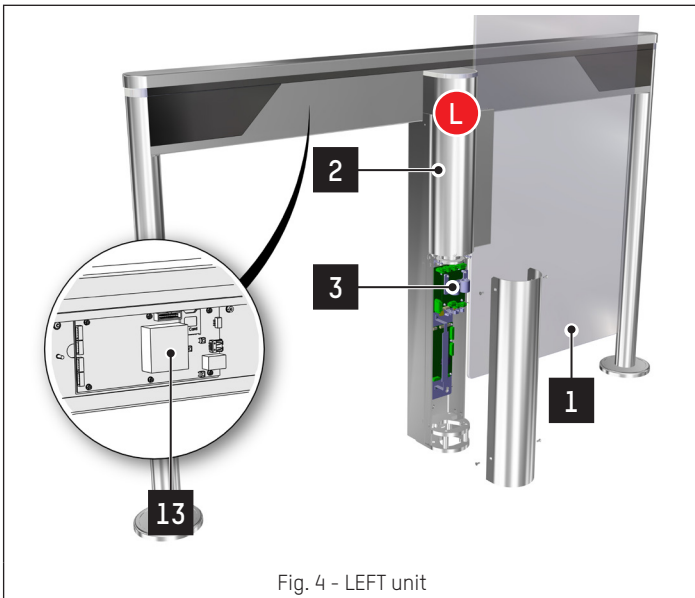


Fig. 4 - LEFT unit

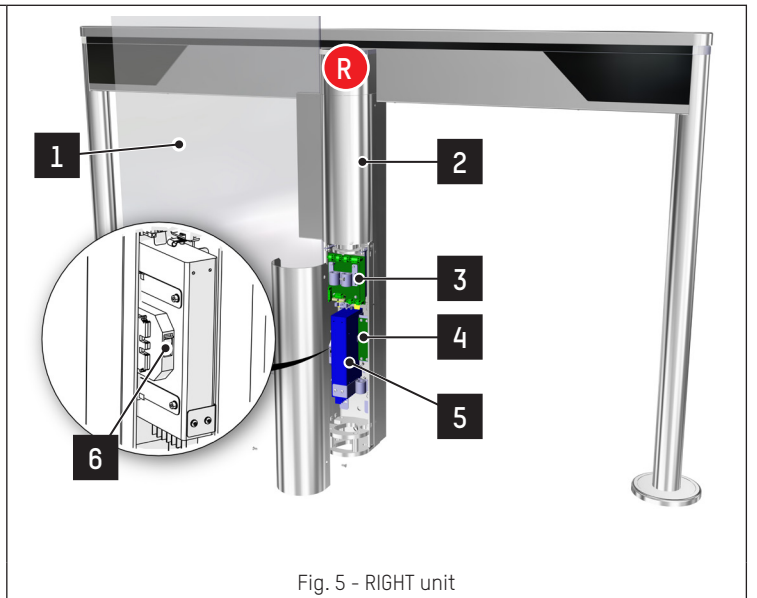


Fig. 5 - RIGHT unit

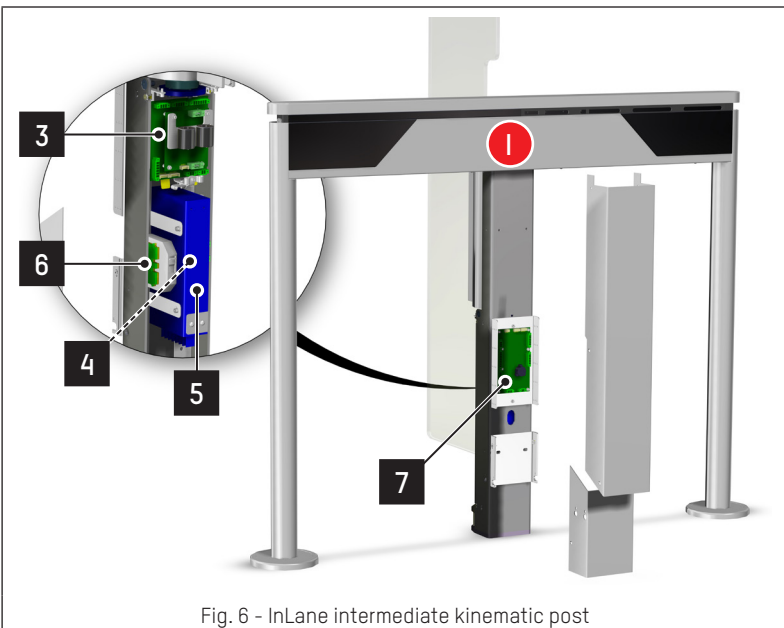


Fig. 6 - InLane intermediate kinematic post

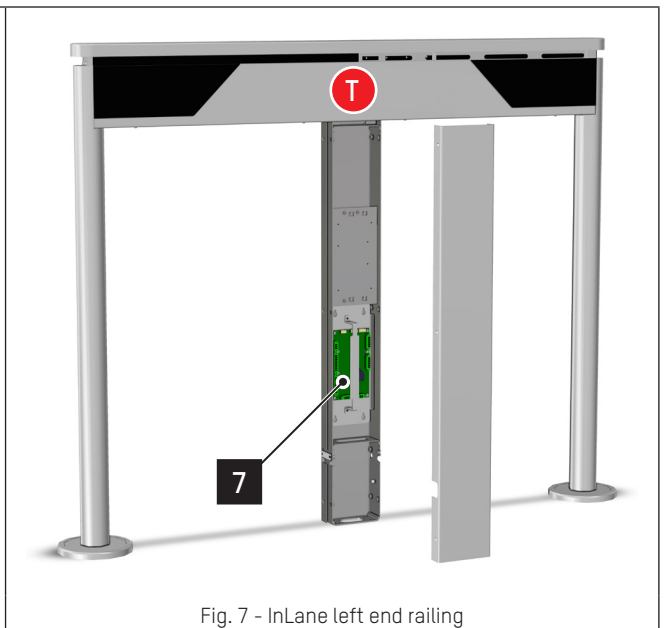


Fig. 7 - InLane left end railing



Fig. 8 - Left-hand railing

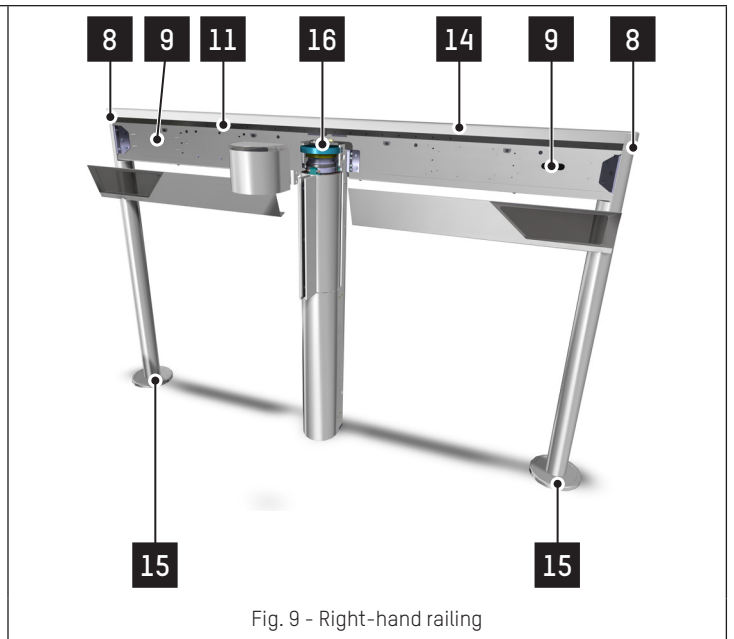


Fig. 9 - Right-hand railing

REF.	DESCRIPTION
1	Left/right mobile obstacle
2	Left right mobile cylinder (motorization)
3	AS1185 + AS1170 motorization boards
4	AS1172 circuit board (24 VDC distribution)
5	Regulated power supply
6	Main circuit breaker
7	Input/Output AS1612 circuit board
8	Orientation lights (AS1171 circuit boards)
9	Space for customer access control system, behind Plexiglass screen
10	Nameplate with serial number
11	Receiver detection cells (DIRAS AS1643 circuit boards)
12	Transmitter detection cells (DIRAS AS1642 circuit boards)
13	Motherboard (= control module = CPU board) <b>One per lane, located in the left-hand railing in direction A</b>
14	Cover plate
15	Trim ring for the foot of the railing
16	Status light (AS1174 circuit board)

## 4.3. LOCATION OF SOME OPTIONS


 Only a few options are listed below. Please refer to the data sheet and price list for a complete list of options.



Fig. 10 - Location of options


REF.	DESCRIPTION	REF.	DESCRIPTION
1	Personalised cover plate	8	Podium
2	Personalised self-adhesive logo on mobile obstacles	9	Extension housing for SlimLane SC
3	Battery + blocking electromagnet for automatic opening	10	Glass walls
4	Integration of reader in the unit	11	Reinforced protection cells and trolley
5	External bracket for integration of a reader on a unit	12	"Smart & Slim" control panel
6	Fixed railing	13	Configurable "Smart Touch" interactive control panel
7	Pole for reader	14	End post without trim rings

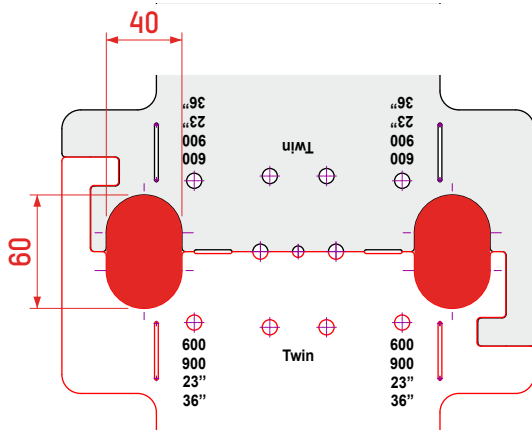
## 5. INSTALLATION

### 5.1. SITE PREPARATION WORK

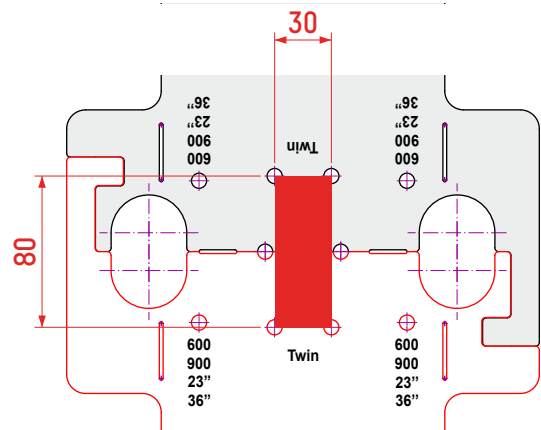
The equipment is designed for indoor use, protected from the elements.

The preliminary installation work on the equipment must be carried out in accordance with the installation plan (⇒ Chap. 10). This applies in particular to the laying of conduits for electrical cables (⇒ Chap. 5.5).

 The locations of the cable routings can be determined by means of the drilling templates, the use of which is detailed in (⇒ Chap. 5.4.1) (below the max. dimensions):



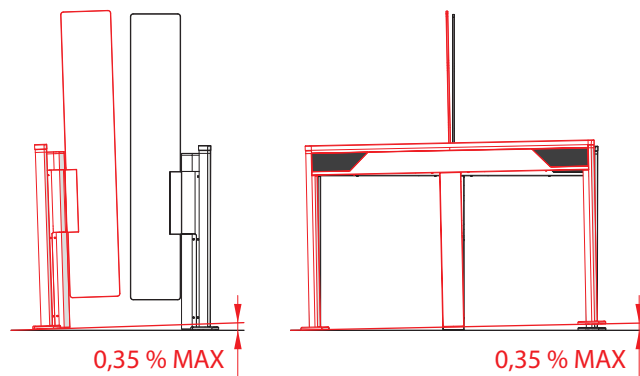
Cable routing for SlimLane 940 & 950



Cable routing for SlimLane 944 & 945

The ground on which the gate will rest must be at least 14 cm thick (for the screws supplied), and must be resistant to the torque exerted by the tightening of the screws (min 50 Nm). ⇒ It is recommended to work in concrete of at least class C20/25.

The floor must be perfectly flat (and smooth), with a maximum slope between 2 adjacent units of 0.35% (longitudinally and transversally).









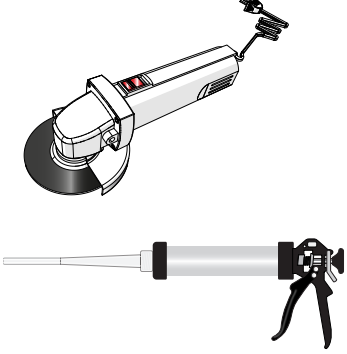



The slope must be constant (no change in direction allowed).

### 5.2. STORING THE EQUIPMENT

Before installation, protect the equipment from impact and leave it in its original packaging in a dry area protected from dust, heat and the weather.

Storage between: -30 to +80 °C.

## 5.3. REQUIRED TOOLING

<p>Resin sealer (for the 9 floor anchoring screws), to be adapted to the nature of the floor and which must resist the following forces:</p> <ul style="list-style-type: none"> <li>- Traction: 500 daN</li> <li>- Shear: 690 daN</li> </ul> <p>Non-exhaustive list of resins suitable for a class C20/25 concrete floor:</p> <ul style="list-style-type: none"> <li>- Fisher FIS V</li> <li>- Hilti HIT-HY 200</li> <li>- Spit Epcon C8 Extreme</li> <li>- Wurth WIT C 150</li> <li>- Henkel Pattex CF 900</li> <li>- Henkel Pattex CF 1000</li> </ul> 	<p>Set of hexagonal metric Allen keys + metric flat spanner set. + Torque wrench (option)</p> 			
<p>Drilling machine + set of drill bits adapted to the nature of the ground, up to Ø14 mm (For attaching the equipment to the ground).</p> 	<p>Set of flat + Phillips screwdrivers</p> 	<p>Electrician's screwdriver</p> 	<p>Mallet (For attaching the equipment to the floor)</p> 	<p>Angle grinder for cutting out the 1 mm thick stainless steel cover plate of the anchoring frames + black silicone cartridge (for attaching on optional anchoring frames with stainless steel cover plate)</p> 
<p>Ratchet wrench + cardan joint + extension + socket 13 mm (For attaching the equipment to the floor)</p> 	<p>Cat 6 shielded Ethernet cable + RJ45 connector + crimping pliers (For connecting the lane to the network, if necessary)</p> 	<p>PC + mini USB or RJ45 Ethernet cable  OR  Supervision panel (option) for lane setting</p> 		




## 5.4. INSTALLATION OF THE EQUIPMENT

The installation must be carried out in accordance with the safety instructions (⇒ Chap. 3) and the installation plan (⇒ Chap. 10).

The assembly and installation of the elements delivered in kit form must be carried out by 2 people, as the equipment is unstable before it is anchored to the floor.

Minimum time required (per lane): 2 h of assembly + 2 h of anchoring and connections (allow double that for the first lane).

### 5.4.1. FLOOR ANCHORING

 The standard anchoring procedure is described below. If mounting on an anchoring frame, on a podium (options) or for anchoring without base plate, please refer to the dedicated manuals.

**THE EQUIPMENT MUST BE ANCHORED TO THE FLOOR BEFORE MAKING IT ACCESSIBLE TO USERS!**

**THE EQUIPMENT IS UNSTABLE IF IT IS NOT ANCHORED!**



**THE EQUIPMENT MUST BE ANCHORED TO THE FLOOR USING THE SCREWS AND PLUGS SUPPLIED BY AUTOMATIC SYSTEMS AND FOLLOWING THE PROCEDURE DETAILED BELOW.**

**THE PRECISION REQUIRED MAKES THE USE OF TEMPLATES INDISPENSABLE.**

**AUTOMATIC SYSTEMS CANNOT BE HELD RESPONSIBLE FOR ANY ACCIDENT OR DAMAGE TO THE EQUIPMENT DUE TO IMPROPER FLOOR ANCHORING.**

1. Assemble the drilling templates by nesting the 2 halves.

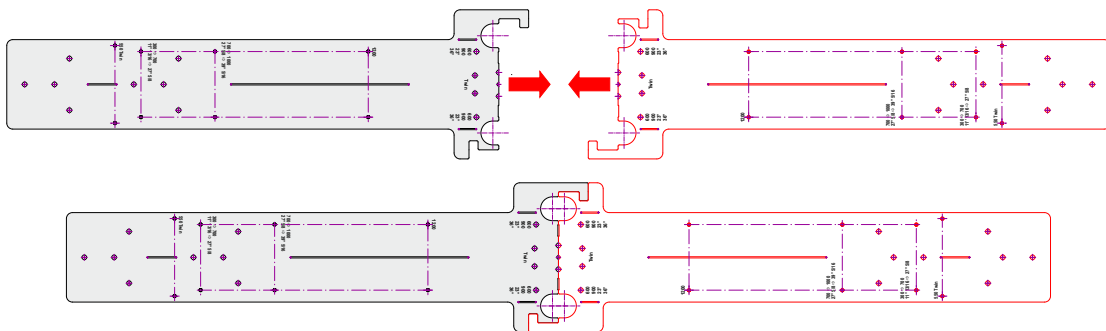


Fig. 11 - Drilling template assembly

2. Screw the cross braces **1** and **3** on the studs of the drilling templates **2** using the M5 nuts.

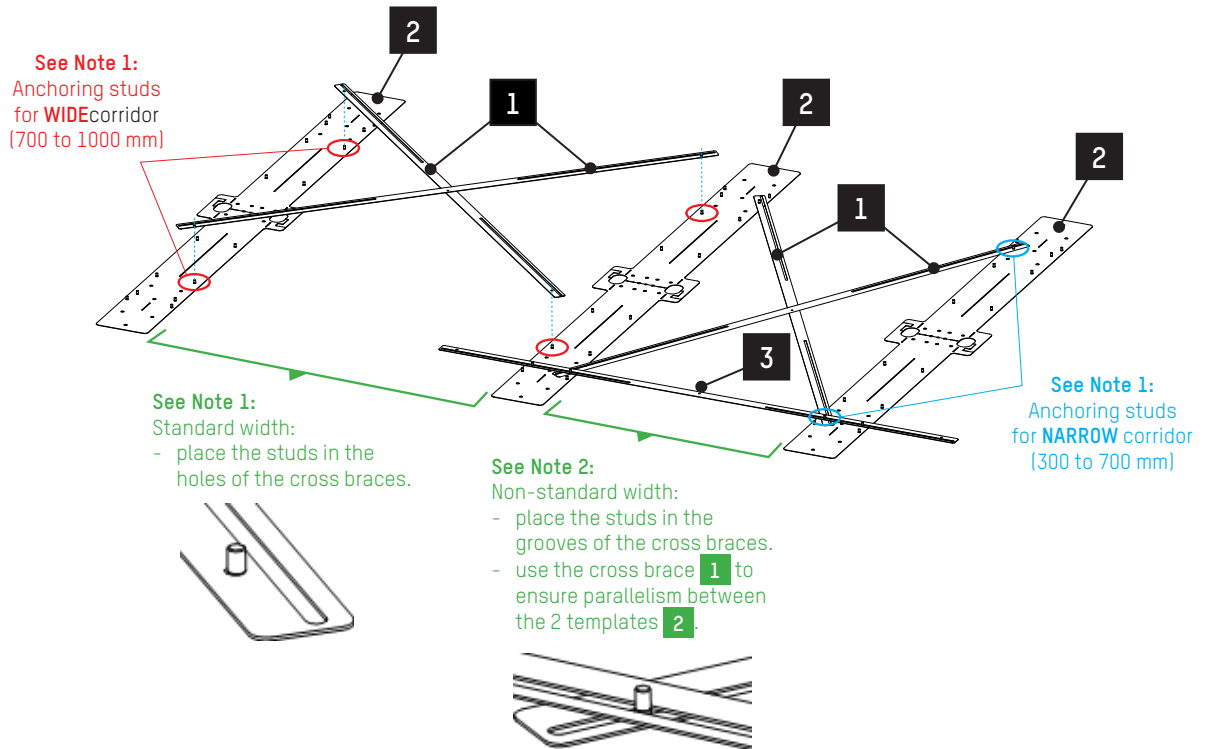


Fig. 12 - Positioning of the cross braces

**Note 1:** Use the anchoring studs of the template **2** adapted to the width of the lane:

- Passage 1200 ⇒ studs marked "1200".
- SlimLane 950, 950SC ⇒ studs marked "700 ⇒ 1000".
- SlimLane 940, 940SC ⇒ studs marked "300 ⇒ 700".
- SlimLane 944, 944SC, 945 & 945SC ⇒ studs marked "Twin".

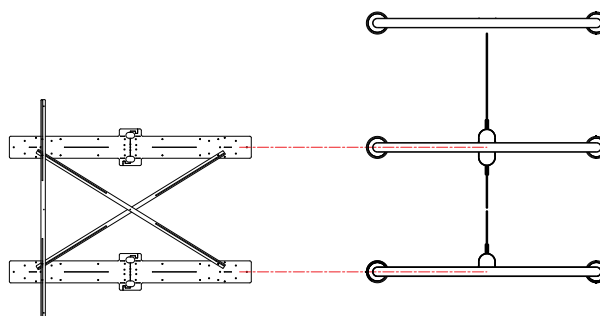
For each case, 2 studs are available. Use the one located towards the inside of the lane (see illustration above).

**Note 2:**

For **non-standard-width** lanes, place the anchoring studs in the **grooves** of the cross braces **1** and **3**, in order to adjust the distance between the 2 templates **2**.



The distance between the templates corresponds to the distance between the units:



For **standard-width** lanes (600, 900 or 1200 mm), place the anchoring studs in the **holes** of the cross braces **1**.

3. Place the templates on the floor and check the dimensions of the passageway(s) using the drawing below:

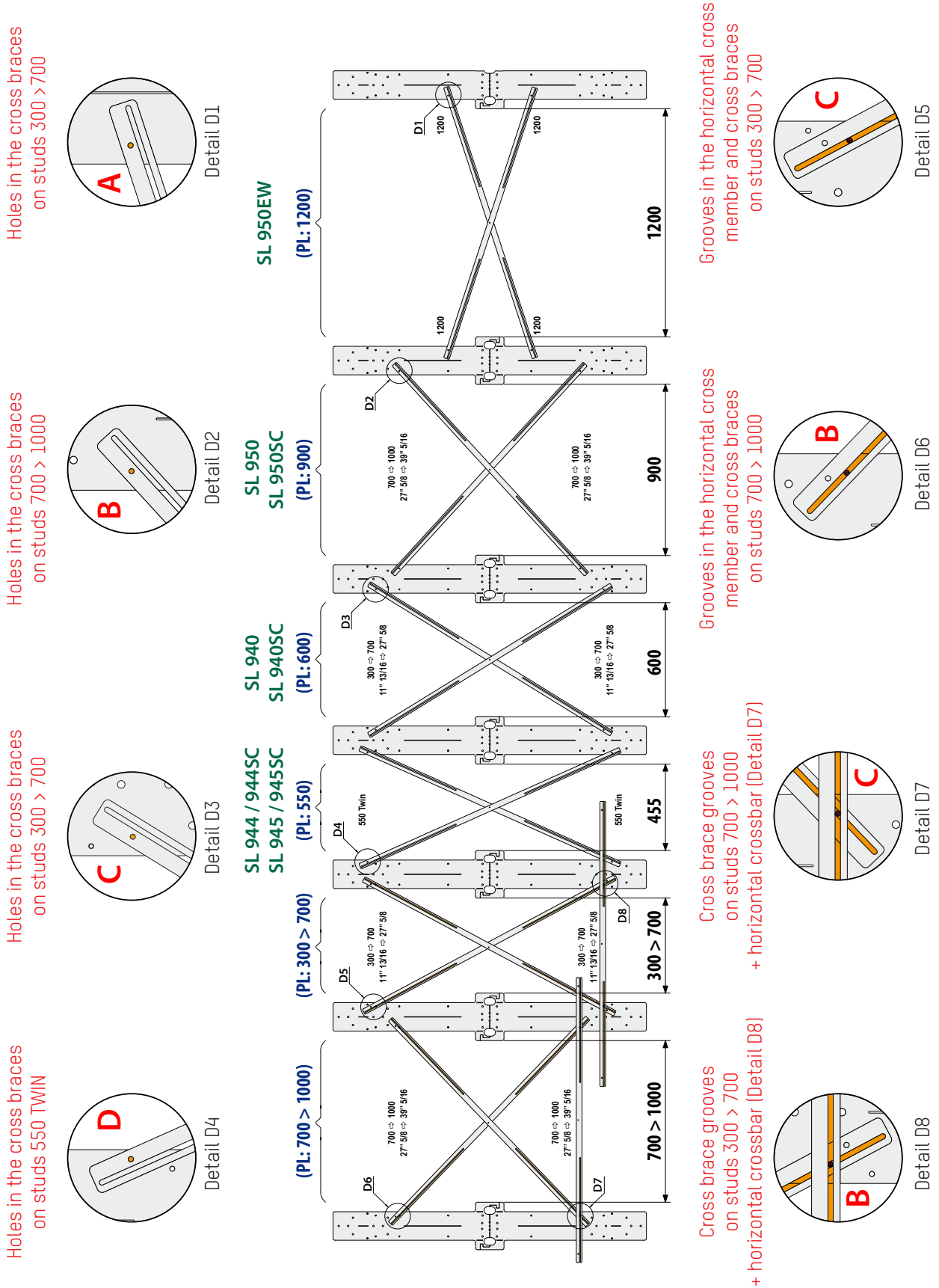


Fig. 13 - Layout of the templates

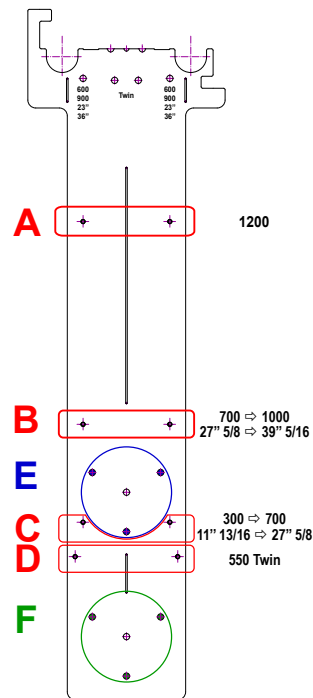


Fig. 14 - Markers for passage dimensions and STD/SC models



Markers A, B, C and D ⇒ Note1 on (⇒ page 16).

4. Drill **VERTICAL** holes of **Ø8 mm** and **10 mm** deep at the anchoring points of the railing posts and kinematic posts:

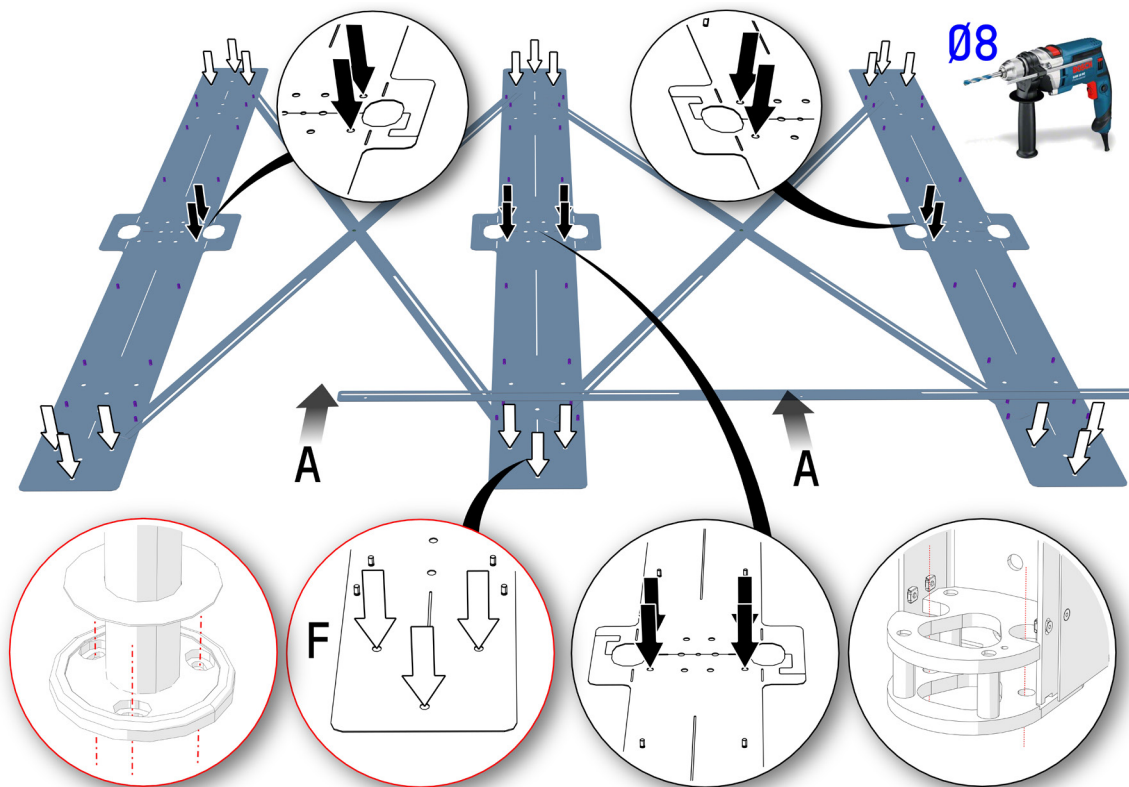


Fig. 15 - Railing post and kinematic post anchoring points - STD models (long).

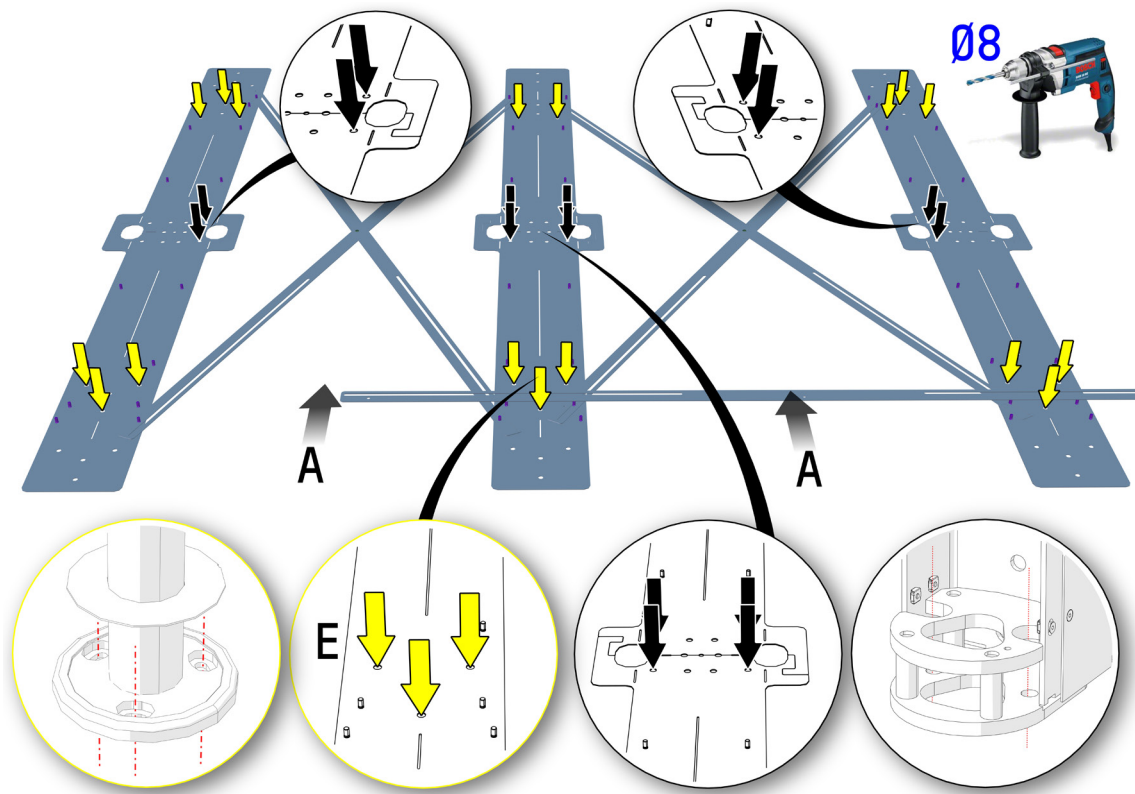


Fig. 16 - Railing post and kinematic post anchoring points - SC models (short).

5. Drill 2 **VERTICAL** holes of **Ø8 mm** and **10 mm deep** at the anchoring points of the **non-kinematic posts** of the SlimLane 944, 944SC, 945 & 945SC:

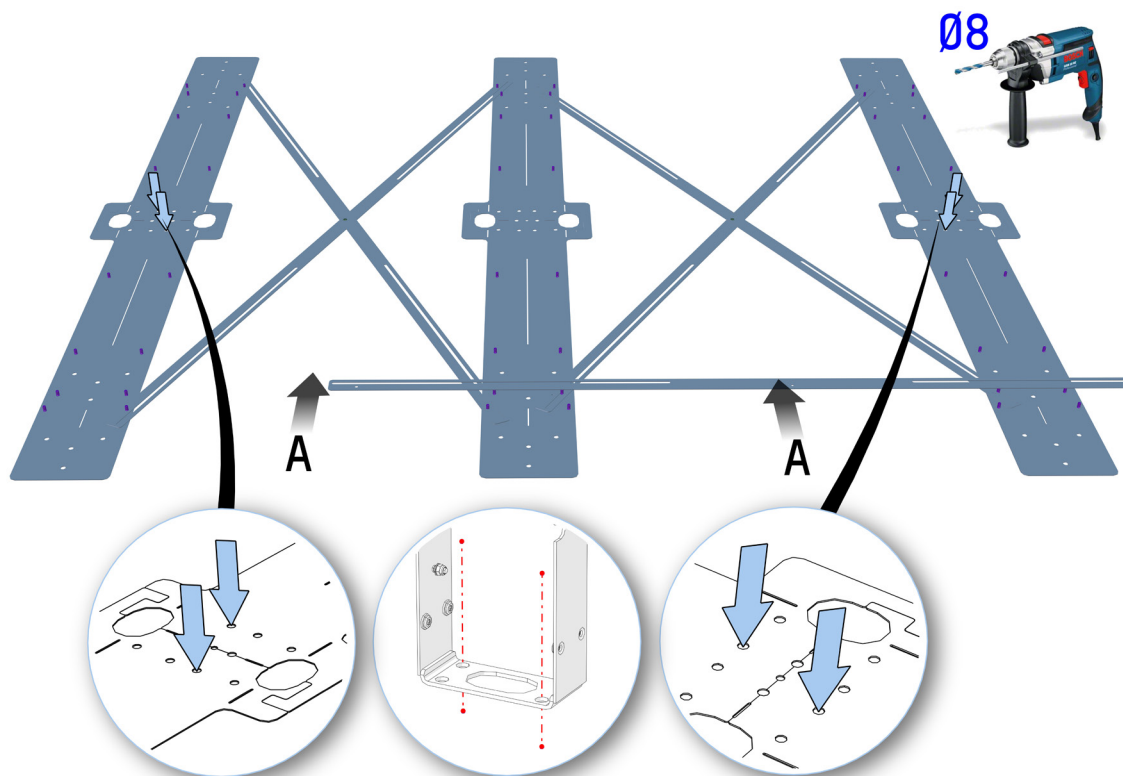


Fig. 17 - Anchoring points of the non-kinematic posts.

6. Remove the drilling templates:

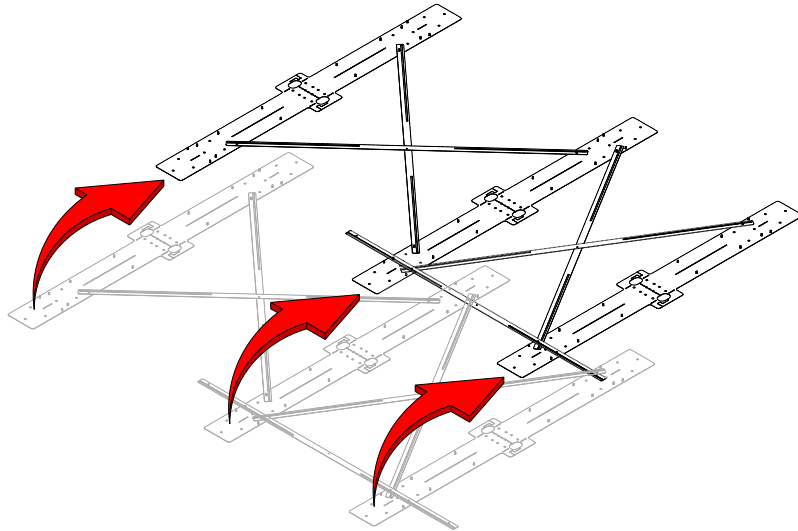


Fig. 18 - Removing the drilling templates

7. Enlarge all the holes made to  $\varnothing 14$  mm and a depth of 100 mm:



Adapt the  $\varnothing$  of the hole and the drilling depth to the type of plug used. (See specific instructions for the plug)

8. Assemble the screws + plugs in the holes of the Nylon guides, through the drilling template, at the following locations:

- Railing post(s):

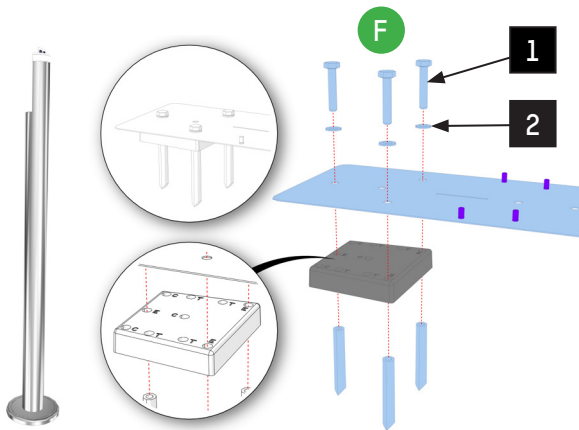


Fig. 19 - Nylon guide assembly for SlimLane STD

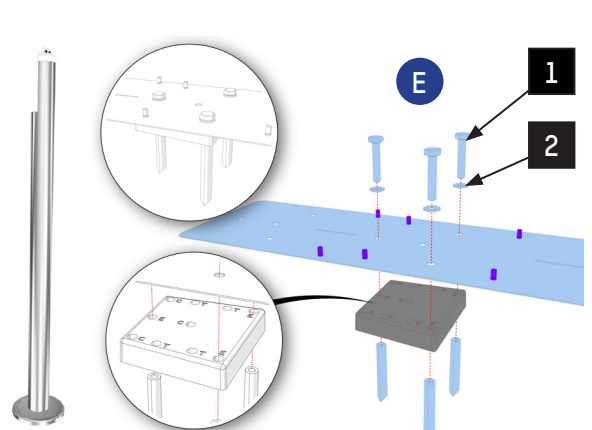


Fig. 20 - Nylon guide assembly for SlimLane SC

REF.	DESCRIPTION
1	Screw DIN 933 M8 x 40
2	Washer DIN 125 M8

- Kinematic post:

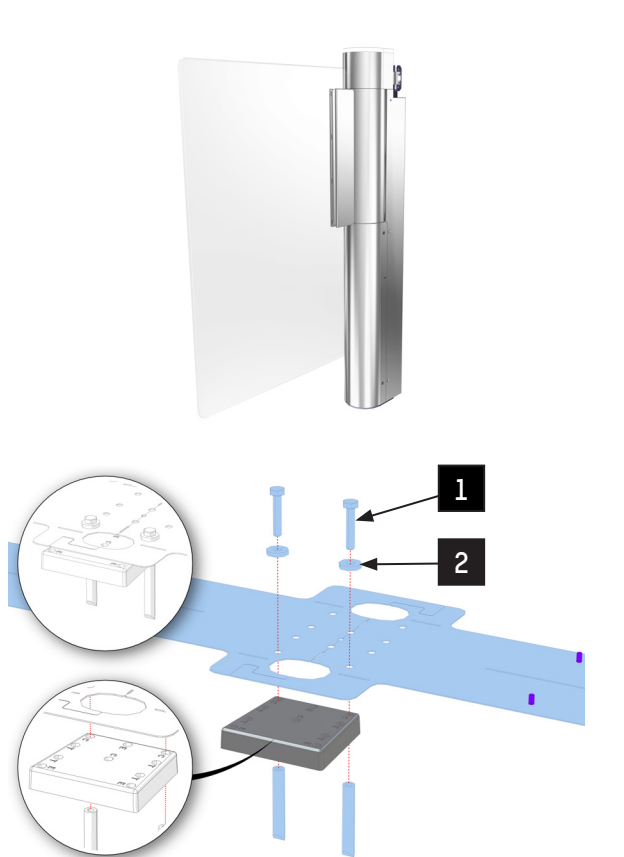


Fig. 21 - Nylon guide assembly for 1 kinematic

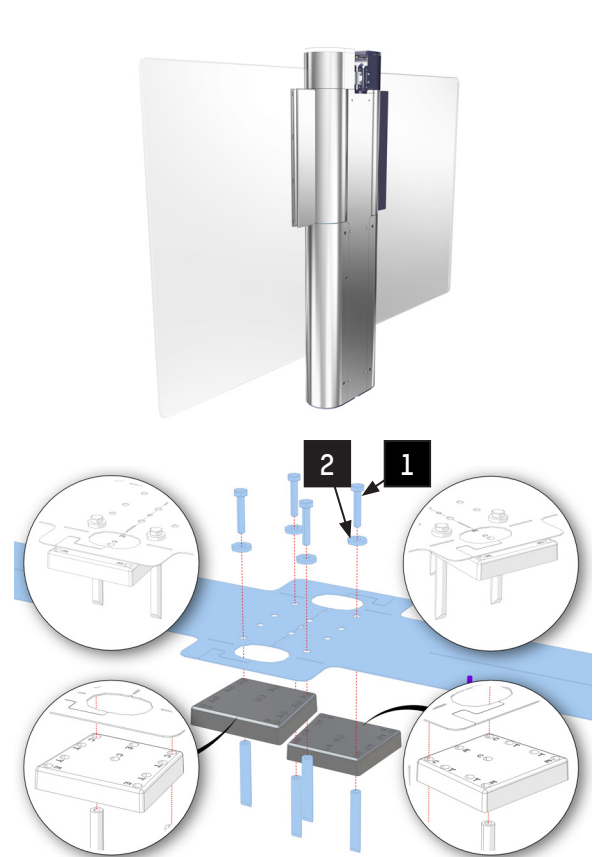


Fig. 22 - Nylon guide assembly for 2 kinematics

REF.	DESCRIPTION
1	Screw DIN 933 M8 x 40
2	Washer DIN 7349 M8

- Post without kinematics:

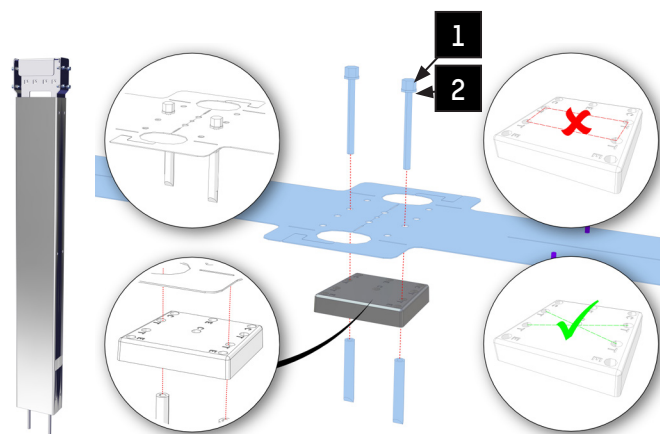
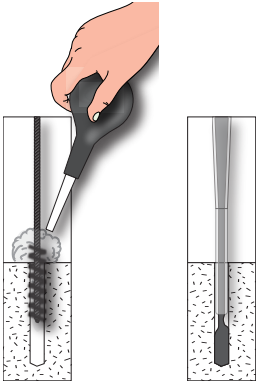


Fig. 23 - Nylon guide assembly for non-kinematic post(s)

REF.	DESCRIPTION
1	Screw DIN 933 M8 x 40
2	Washer DIN 7349 M8

9. a) Clean the holes: brush and/or blow.  
b) Fill the holes with resin sealer (not supplied), for 1 lane at a time.



10. Dip the plugs/Nylon guides/templates assembly into the resin sealer:

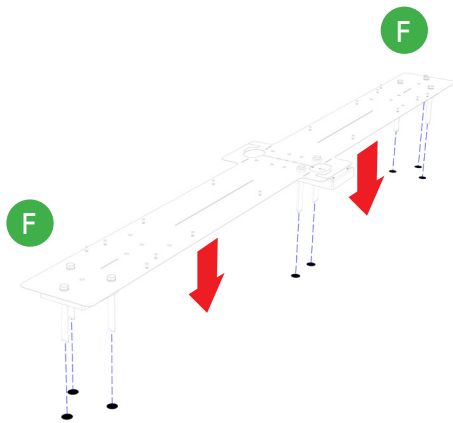


Fig. 24 - Insertion in resin long models - step 1

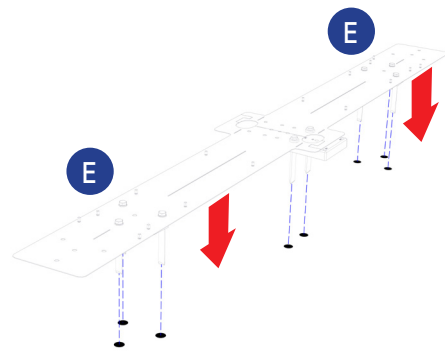


Fig. 25 - Insertion in resin short models - step 1

11. Loosen the screws of the Nylon guides (1 turn) and hit the drilling template with a mallet at the location of the Nylon guides so as to ensure that the plugs are fully embedded in the ground.

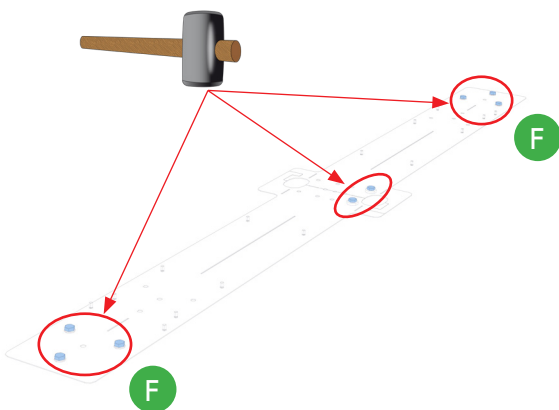


Fig. 26 - Insertion in resin long models - step 2

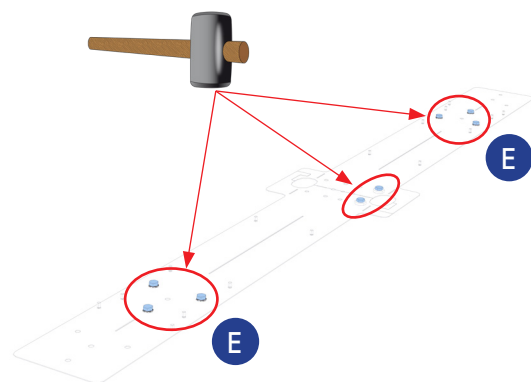


Fig. 27 - Insertion in resin short models - step 2

12. Allow the resin to dry, according to the manufacturer's recommendations.
13. Unscrew screws and washers to remove the Nylon guides.



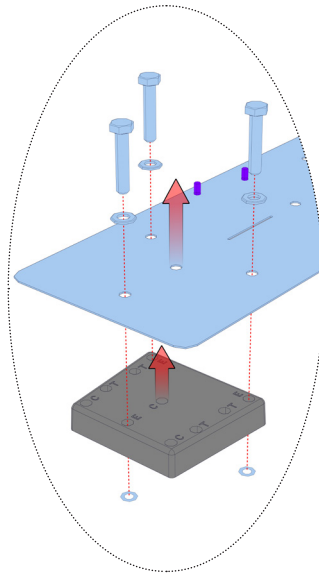


Fig. 28 - Nylon guide removing

14. Clean excess resin from around the plugs and on the Nylon guides.
15. Repeat steps 1 to 15 for each lane.
16. Insert the trim ring on the railing posts and screw them into the plugs.  
Glue the trim ring to the base of the post using the double-sided sticker inside the post.

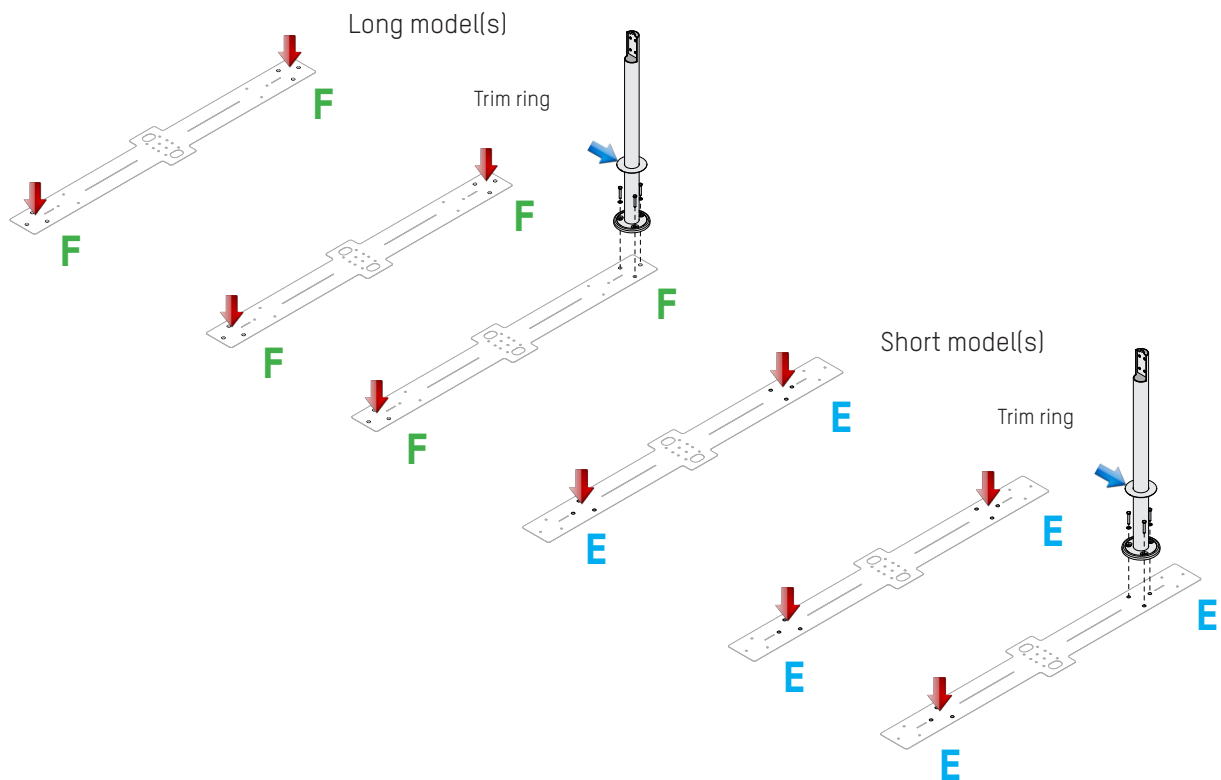


Fig. 29 - Installation of the trim rings

17. Anchor the non-kinetic post(s) of the SlimLane 944, 944SC, 945 & 945SC.

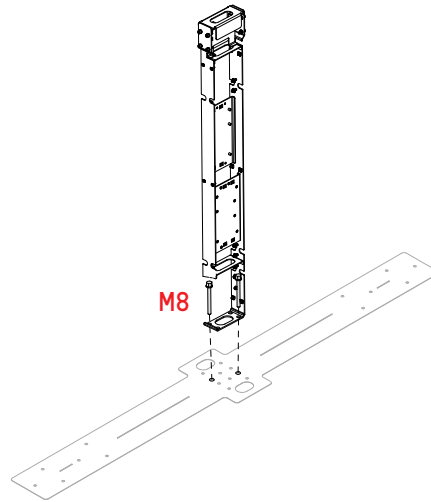


Fig. 30 - Non-kinetic post mounting

18. Anchor the kinematic post into the plugs:

- Unscrew the kinematics panel (⇒ Chap. 6.5.2).
- Tighten the anchoring screws with a torque of 22 Nm.

**i** The right kinematic post (marked K/PGV-P/CxD and containing the regulated power supply 5, (⇒ Chap. 4.2)) must be placed to the right of the lane in direction A (= direction of passage from the uncontrolled area to the controlled area).  
The use of 2 screws is sufficient to ensure the stability of the post.

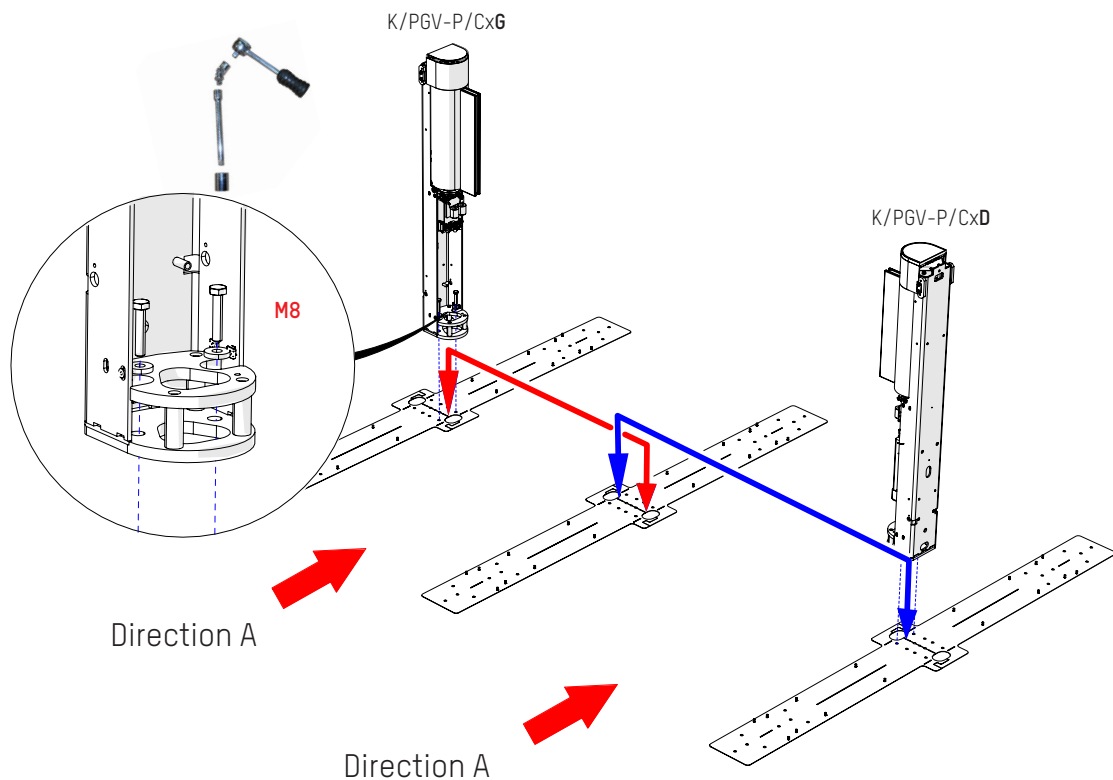


Fig. 31 - Kinetic posts mouting

## 5.4.2. INTEGRATION OF A CARD READER (NOT SUPPLIED)

### In the railing:

1. Unscrew the railing panel(⇒ Chap. 6.5.4).
2. Attach the reader to the railing using the supplied Velcro strips.

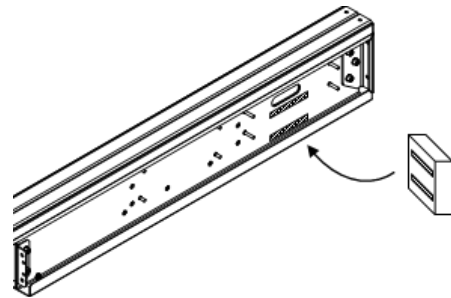


Fig. 32 - Integrating the reader in the railing

### On the standard external bracket (option):

1. Attach the reader to the stand.



If the reader specifications were detailed when ordering, a specific adapter plate is provided (not illustrated).

2. Attach the bracket to the railing post.

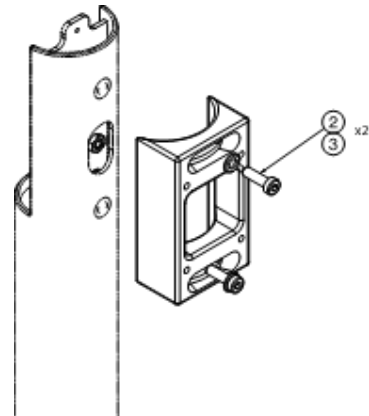


Fig. 33 - Integrating the reader on an external bracket

REF.	DESCRIPTION
2	Flat washer M6
3	Screw M6x20

## 5.5. ELECTRICAL CONNECTIONS

Depending on the regulations in force at the place of installation, the type of motorization may differ. In this context, **Automatic Systems** has developed two different motorization boards. This document indicates the procedure to follow for the connection of these two boards.

Please check, **BEFORE** any attempt at connection, which model of board has been delivered with your device.



**THE OPERATIONS MUST BE CARRIED OUT IN ACCORDANCE WITH THE SAFETY WARNINGS, (CHAP. 3). IN PARTICULAR, THE POWER SUPPLY MUST BE SWITCHED OFF BEFORE CARRYING OUT THE OPERATIONS DESCRIBED BELOW (CIRCUIT BREAKER (6), CHAP: 4.2, PAGE 10).**

1. Connections must be done **in accordance with the wiring diagrams** included **inside the equipment**, as these represent the **primary reference instructions**.
2. Observe the cable cross sections specified in the installation plans, otherwise you may not be able to carry out the connections inside the equipment.  
Wherever possible, use flexible cables.
3. Use of antistatic gloves or bracelets (ElectroStatic Discharge) is essential when handling electronic printed circuit boards, at the risk of the warranty being voided.
4. Tighten the stripped part of the shielded cables in the cable clamp provided:

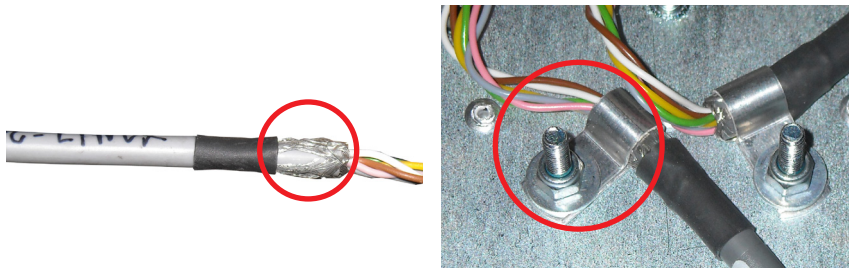


Fig. 34 - Shield connection

5. The type of cable and their location of arrival is indicated on the layout plan and is identical for each lane. For example, for an array of 2 lanes, the cables will pass through the following ducts:

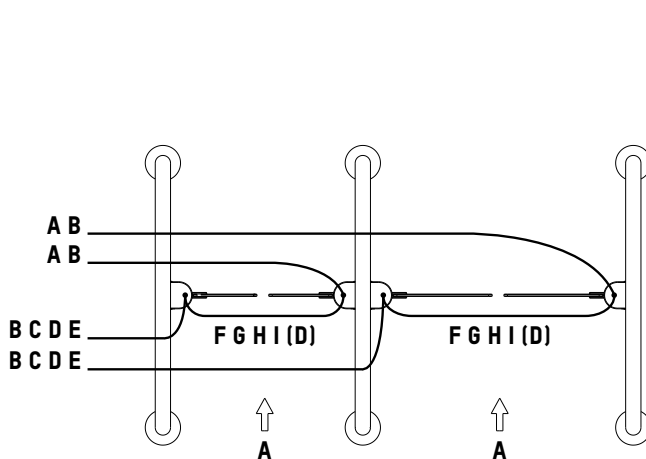


Fig. 35 - Type of cable and location

### Compulsory cables:

- A: General power supply
- F: 24 V power supply control
- G: 24 V power supply power
- H: Ground wire
- I: CAN cable

### According to the customer's equipment:

- B\*: Cable from the reader to the control unit
- C: Ethernet cable for remote control of the lane
- D\*: Cable from the control unit to the I/O board
- E: Cable for evacuation control

\* When the readers are autonomous and not connected to a control unit, each reader must be directly connected to the Input/Output board located in the left kinematic post, cable B is not necessary and cable (D) coming from the reader of the right trunk can be routed through the inter-trunk sheath (see detail below).

6. A cable puller is located at the rear of the kinematic post to route the electrical cables through it.

## CONNECTION

ILLUSTRATIONS FOR SLIMLANE 940, 940SC, 950, 950SC, 950EW & 953.  
 FOR SLIMLANE 944, 944SC, 945 & 945SC LANES, REFER TO THE ELECTRICAL TECHNICAL FILE  
 INSIDE THE EQUIPMENT, WHICH REMAIN THE REFERENCE IN ANY CASE.

For each lane, connect the electrical control panels of the left and right units using the F-G-H-I cables supplied (marked W10 - W25 and W28 on the wiring diagrams).

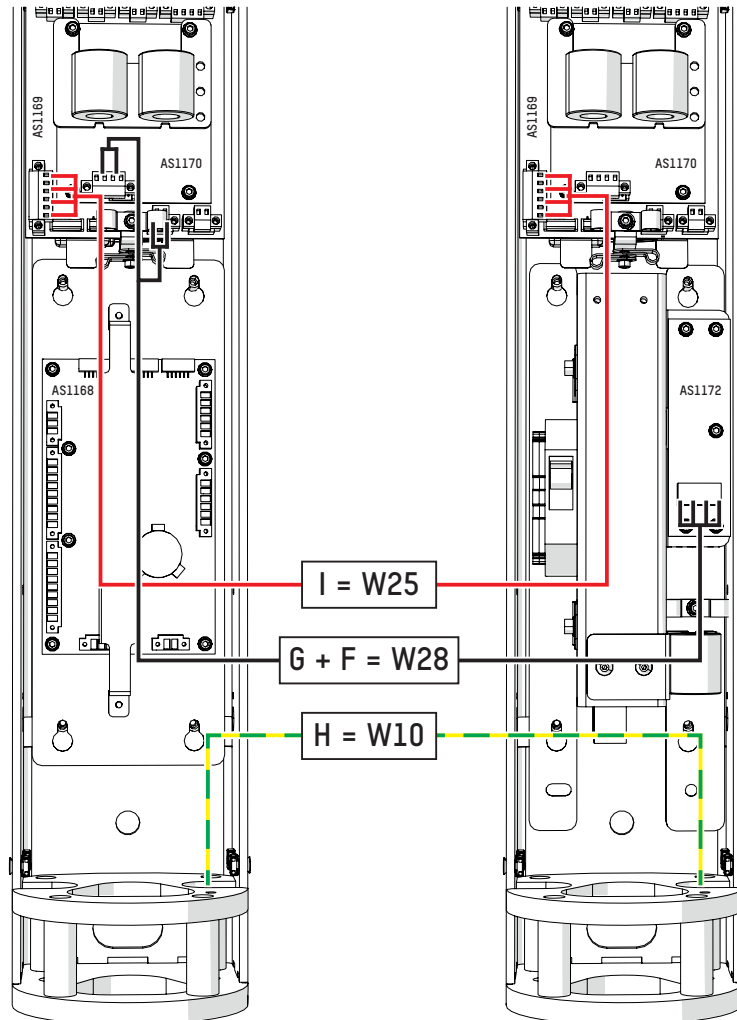


Fig. 36 - Connection between control panels



The W28 cable is replaced by the W13 cable in the SL944/945 models (because only one motor).

### Readers - 1st case:

Connect autonomous readers (i.e. not going through a central control unit and managing the access authorizations themselves) to the Input/Output board by means of **cables D** (not supplied).

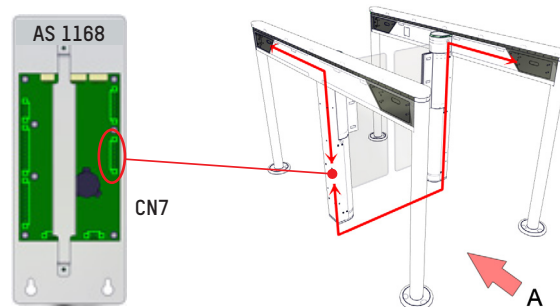
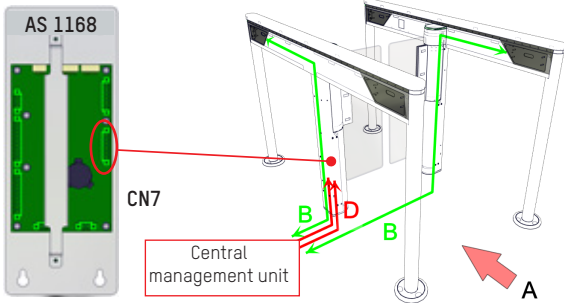
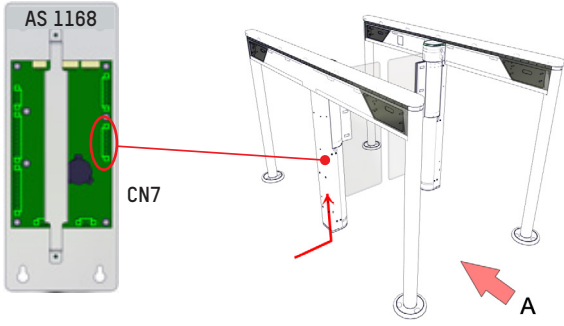
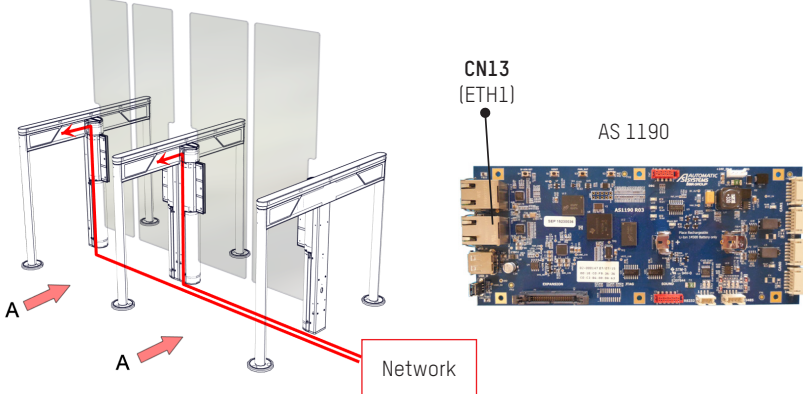
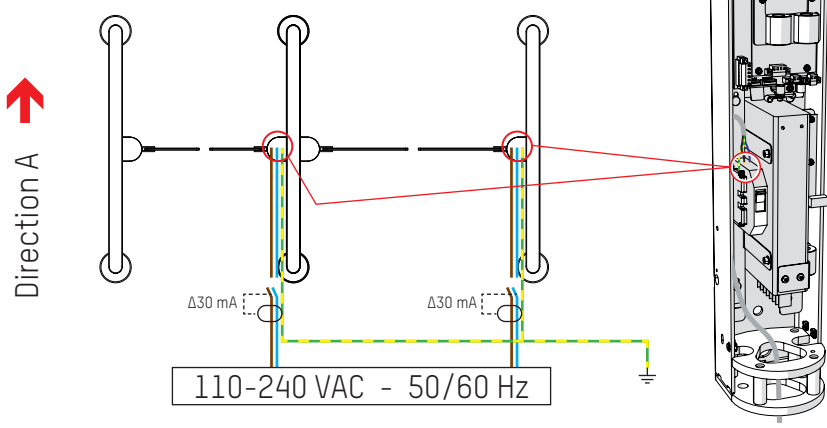


Fig. 37 - Autonomous LC connection

CONNECTION	ILLUSTRATIONS FOR SLIMLANE 940, 940SC, 950, 950SC, 950EW & 953. FOR SLIMLANE 944, 944SC, 945 & 945SC LANES, REFER TO THE ELECTRICAL TECHNICAL FILE INSIDE THE EQUIPMENT, WHICH REMAIN THE REFERENCE IN ANY CASE.
<p><b>Readers - 2nd case:</b> Connect the readers to the control unit, if any, by means of the <b>cables B</b> (not supplied) and connect the control unit to the Input/Output board using <b>cables D</b> (not supplied).</p>	 <p>Fig. 38 - Central connection</p>
<p>Connect any forced opening command to the Input/Output board using <b>cablE E</b> (not supplied).</p>	 <p>Fig. 39 - Forced opening connection</p>
<p>If remote control is desired (not required), connect each lane to the network using <b>cablE C</b> (not supplied): Ethernet cat 5, unshielded, RJ45 connector.</p> <p>Crimp the RJ45 connector after routing the cable through the equipment.</p>	 <p>Fig. 40 - Network connection</p>
<p>Power supply to the straight and intermediate cabinets (110-240 VAC single phase + earth + differential 30 mA minimum), using <b>cablE A</b> not supplied (362.5<sup>2</sup>).</p> <p>Protecting the upstream line of each piece of equipment by a 16-amp circuit breaker.</p>	 <p>Fig. 41 - Power supply connection</p>

## 5.5.1. ELECTRICAL CONNECTION OF ELEMENT(S) OF AN INLINE ARRAY OF LANES



**TO PREVENT ANY DANGER WHEN WORKING ON THIS TYPE OF DEVICE, IT WILL BE NECESSARY TO CUT OFF THE POWER SUPPLY TO THE NEXT LANE.**

**E.G.: FOR AN OPERATION ON LANE B, LANE C WILL ALSO HAVE TO BE SEALED OFF.**

In the case of an "InLine" array of lanes, the intermediate kinematic post (marker **I** in the figure below) also contains an Input/Output board of the previous lane. (⇒ Chap. 4.2)

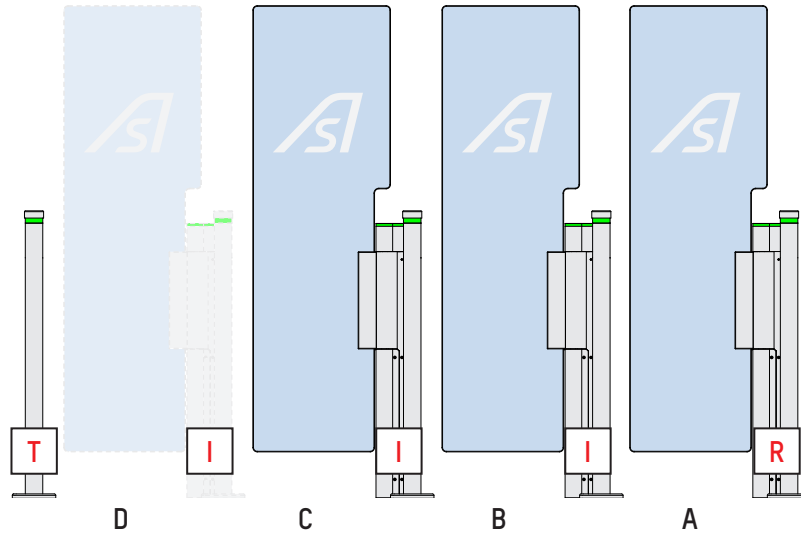


Fig. 42 - Electrical connection of 'InLane' arrays of lanes

The connecting cables are therefore routed via the frame of the "I" kinematics.

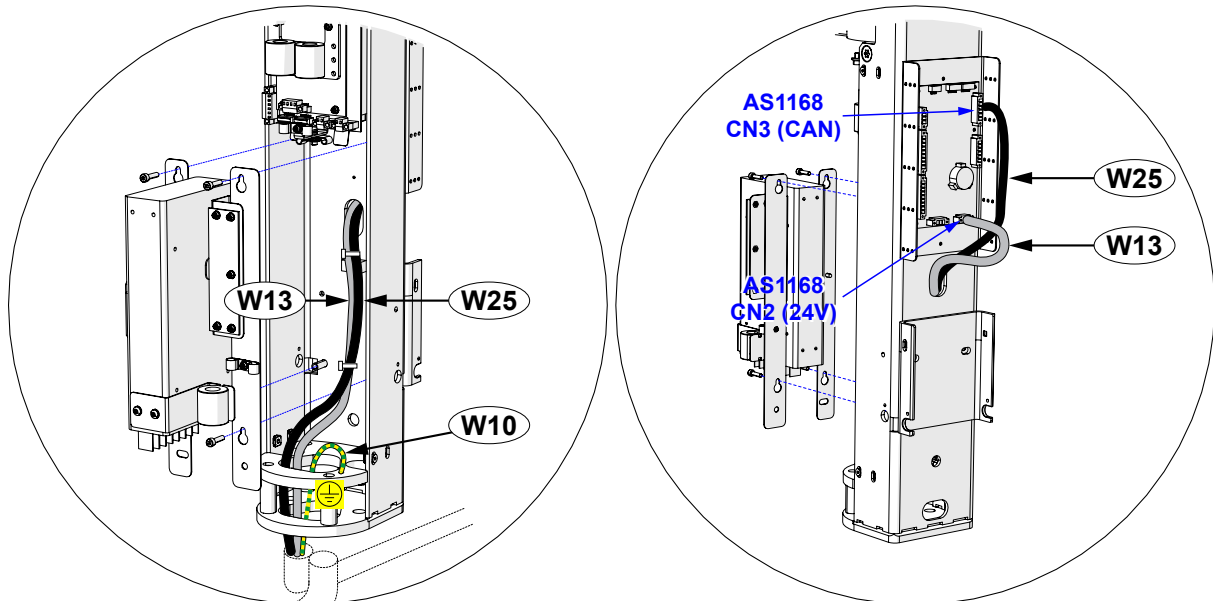


Fig. 43 - 'InLane' cable routing

1. Remove the kinematic panels (⇒ Chap. 6.5.2).
2. Remove the kinematic rear panels (⇒ Chap. 6.5.3).
3. Remove the power supply section.
4. Route the cables through the oblong cut made in the kinematics frame.
5. Make the connections on the AS1168 electronic board as specified on the corresponding electrical diagrams.
6. Replace the power supply component and the panels.

## 5.6. FIRST START-UP



**IT IS IMPORTANT TO CHECK THAT THE AS1606 CIRCUIT BREAKER IS PLUGGED ON THE CONNECTOR OF THE LAST DIRAS CIRCUIT BREAKER (⇒ ELECTRICAL TECHNICAL FILE).**

1. Turn on the main circuit breaker (⇒ Chap. 4.2) (item no. 6), close the covers and switch on the equipment.  
When power is applied, the obstacles will go through an opening and closing cycle to calibrate the position encoder and the status lights are white.
2. Set the lane parameters via the Maintenance Interface (size of the obstacles, opening speed, etc.) ⇒ see specific manual.
3. Perform several openings and closings using the available controls (reader, remote control, etc.) and check the obstacle position in the open and closed positions.
4. Check that the obstacles open completely when an evacuation order is issued (⇒ Chap. 7.5).
5. Pass through several times and check that the lights and buzzer operate properly (⇒ Chap. 7.9).
6. Check that the optional equipment (monitoring panel, etc.) and customer-incorporated equipment (reader, etc.) is operating correctly.



## 6. MAINTENANCE

### 6.1. SWITCHING THE LANE ON/OFF

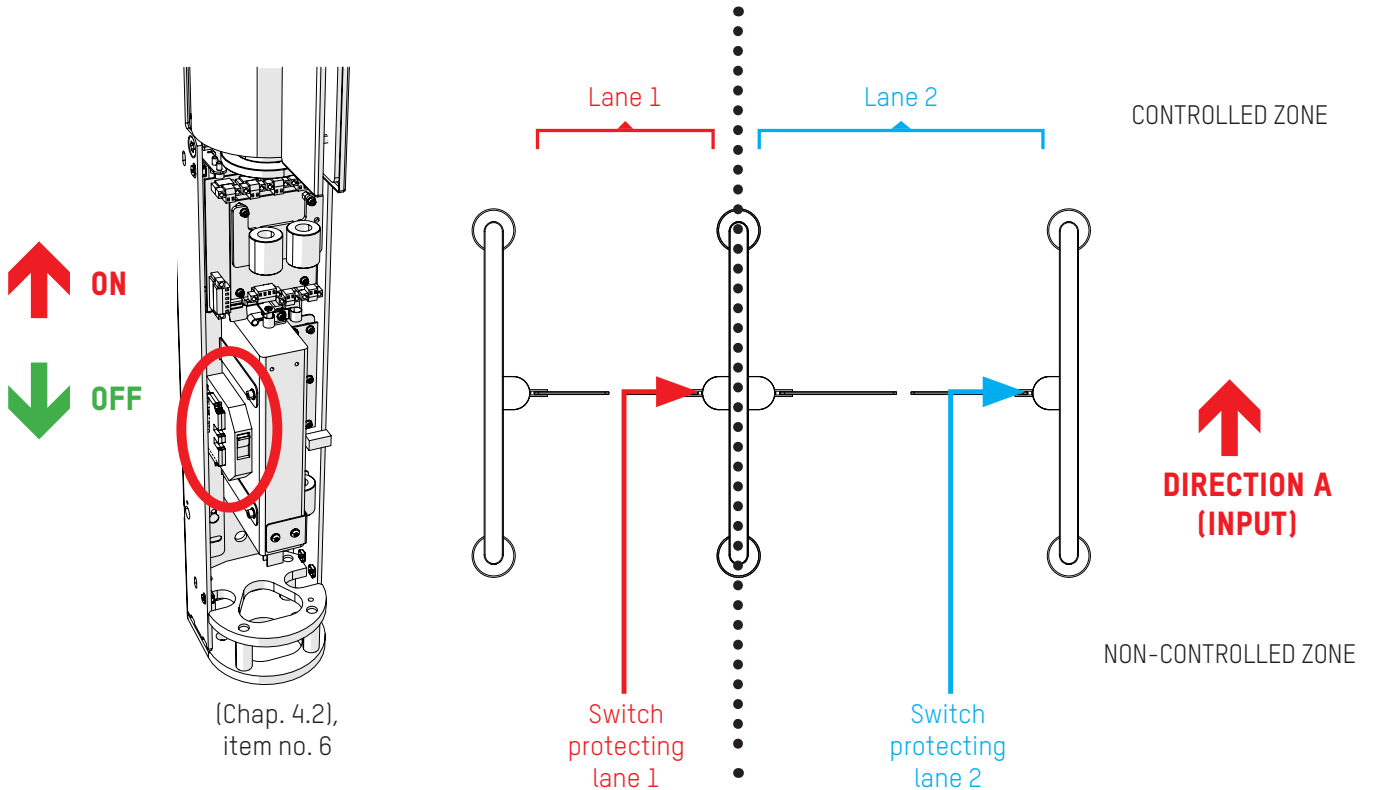


Fig. 44 - Switching the lane on/off

1. Switch off the voltage in the power supply panel of the installation,
- or**
2. A) Switch to Maintenance mode via the Maintenance Interface.
  - b) Open the right-hand kinematics panel of the lane in question (⇒ Chap. 6.5.2).
  - c) **Lower** the circuit breaker (⇒ Chap. 4.2) (item no. 6) to **switch off the power** to the 2 lane units.  
**Raise** the circuit breaker (⇒ Chap. 4.2) (item no. 6) to **turn on the power** to the 2 lane units.

### 6.2. PROLONGED STOP/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. 5.2).
- Leave it powered on, to maintain the charge of the capacitors of the emergency power supply (option).
- 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.
- Perform several passages before putting into service to check proper operation.
- 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.

## 6.3. PREVENTIVE MAINTENANCE

Maintenance must be carried out in compliance with the safety rules (⇒ Chap. 3).

Maintenance frequencies:

- every 6 months or 600,000 cycles for standard maintenance frequency.
- every 3 months or 300,000 cycles if placed in an oxidizing atmosphere.



The frequency of maintenance must be adapted to the conditions of use of the equipment, especially when placed in an oxidizing atmosphere: at the entrance to a swimming pool (heated and chlorinated atmosphere), by the sea, in an industrial environment, etc.

Use of antistatic gloves or bracelets (ElectroStatic Discharge) is essential when handling electronic printed circuit boards, at the risk of the warranty being voided.



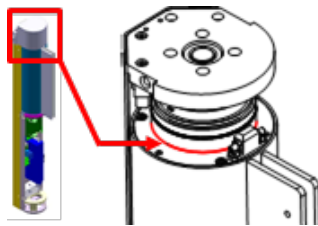


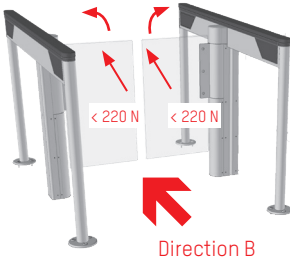
EVERY 3 MONTHS OR 300,000 CYCLES	EVERY 6 MONTHS OR 600,000 CYCLES	OPERATION
✓		Switch to Maintenance mode via the Maintenance Interface.
✓		Clean the exterior housing with a cloth moistened with a stainless steel cleaner (do not spray the product on the housing). <b>Automatic Systems</b> can provide an approved product under reference 0/6031/000.
✓		Clean the obstacles using a window-cleaning product. <b>Automatic Systems</b> can supply a product approved under reference 0/3081/000. 
✓		Inspect exterior appearance: damaged housing, broken obstacle, scratched or broken optic cell screen, etc.
	✓	 <b>TURN OFF ELECTRIC POWER BEFORE ANY INTERVENTION INSIDE THE UNIT! (⇒ CHAP. 6.1)</b>
	✓	Open the access panels and remove dust from the interior of the unit using a soft lint-free cloth and/or an ESD vacuum: <ul style="list-style-type: none"> <li>• Kinematic panel (⇒ Chap. 6.5.2)</li> <li>• Railing panel (⇒ Chap. 6.5.4)</li> <li>• Kinematics cover (⇒ Chap. 6.5.5)</li> <li>• Railing cover (⇒ Chap. 6.5.6)</li> </ul>
	✓	<ul style="list-style-type: none"> <li>• In case of severe corrosion of the brake, replace the entire unit.</li> <li>• In case of heavy soiling, apply a degreasing spray (neither grease nor oil) to the splines of the moving part of the brake.</li> <li>• Clean the brake by blowing air under pressure without dismantling the moving part.</li> <li>• Apply a light silicone spray (no grease or oil) to the splines of the moving part of the brake.</li> </ul> 

Fig. 45 - Brake maintenance


EVERY 3 MONTHS OR 300,000 CYCLES	EVERY 6 MONTHS OR 600,000 CYCLES	OPERATION
	✓	<p>Check that all screws and nuts are tight, including mobile elements and especially:</p> <ul style="list-style-type: none"> <li>• The bolts anchoring the units to the floor (⇒ Chap. 5.4.1)</li> <li>• The screws anchoring the mobile obstacle to the clamp (⇒ Chap. 6.5.9)</li> <li>• The railing glass walls (option) (⇒ Chap. 6.5.12)</li> <li>• The screws anchoring the light cards (⇒ Chap. 6.5.18)</li> <li>• The screws anchoring the DIRAS circuit boards (⇒ Chap. 6.5.19)</li> <li>• The screws anchoring the end stops (⇒ Chap. 6.5.10), Item. 4</li> <li>• The screws anchoring the mechanism to the frame (⇒ Chap. 6.5.10), Item 3</li> </ul>
	✓	Check the condition of the end stops (⇒ Chap. 6.5.10), Item 2 and replace if necessary.
	✓	Check the condition of the wiring and the electrical connections.
	✓	<p>Power up the lane (⇒ Chap. 6.1).</p> <p> <b>POWERING UP WILL CAUSE THE OBSTACLES TO CLOSE!</b></p> <p><b>FOR THE FOLLOWING OPERATIONS, HANDLE ELEMENTS UNDER POWER WITH ADEQUATE INSULATING PROTECTION!</b></p>
	✓	Check the voltage of the main power supply.
	✓	<p>Check the voltage of the regulated power supply 24 VDC ± 1% and adjust it if necessary using the potentiometer located on the inside of the power supply.</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Fig. 46 - Checking the regulated power supply voltage</p>
	✓	Check operation (⇒ Chap. 7.9) of the lights and buzzer during passage through the lane (in both directions) and replace defective parts.
	✓	<p>Perform several openings and closings using the available controls and check that the obstacles are correctly positioned in the open and closed position.</p> <p>If necessary, adjust the end stops (⇒ Chap. 6.5.10), Item 2.</p>
	✓	Check the behaviour of the equipment in case of an evacuation order (⇒ Chap. 7.5).
	✓	<p>Check that the brake mechanism prevents manual opening of obstacles.</p> <p>For lanes operating in the optional "EGRESS" mode, check that the obstacles open when a force of less than 220 N is applied to them at the end of the obstacle in the evacuation direction (direction B).</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Fig. 47 - Brake check</p>

## 6.4. SPARE PARTS

Refer to separate catalogue, available on the Partner Portal (<https://portal.automatic-systems.com>).

To order, indicate the information shown on the equipment nameplate that the spare parts are to be used for:

- Serial number
- Model (SlimLane 940, SlimLane 950, etc.)
- Type (left, right, intermediate)

 Use of antistatic gloves or bracelets (ElectroStatic Discharge) is essential when handling electronic printed circuit boards, at the risk of the warranty being voided.

When replacing an electronic circuit board, set its CAN address and the end of bus switch (⇒ **Electrical Technical File**).

## 6.5. (DIS)ASSEMBLY OF THE VARIOUS COMPONENTS

### 6.5.1. RECOMMENDED 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

### 6.5.2. KINEMATICS PANEL

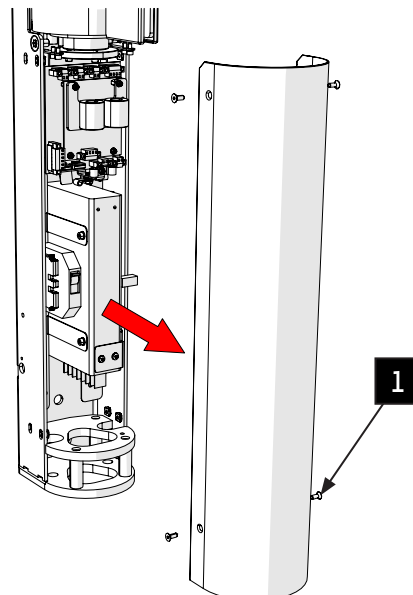


Fig. 48 - Installation/Removal of the kinematics panel

REF.	DESCRIPTION
1	Captive screw (with o-ring) M4x10 + nut

## 6.5.3. KINEMATICS REAR COVER(S)

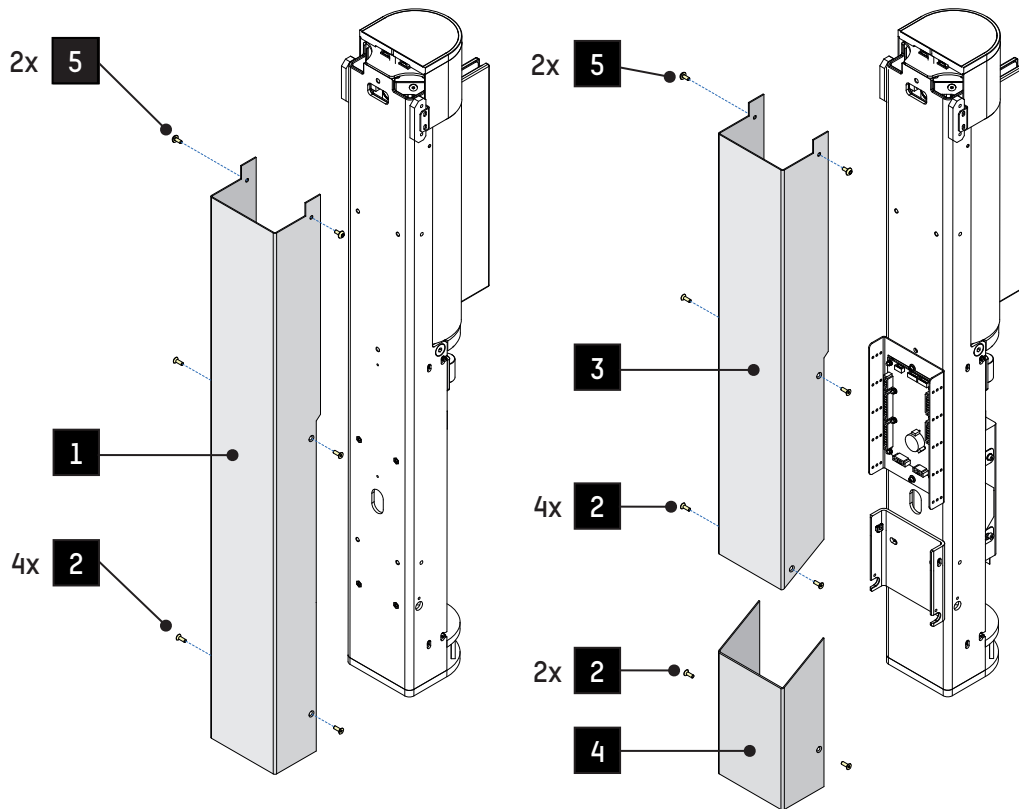


Fig. 49 - Installing/Removing the kinematics rear cover(s)

REF.	DESCRIPTION
1	Rear panel of the kinematic post ("STD" and "SHORT" models)
2	Screw M4x10
3	Upper rear panel of the kinematic post ("InLane" models)
4	Lower rear panel of the kinematic post ("InLane" models)
5	Screw M4x6

## 6.5.4. RAILING PANELS

- A) Loosen the screws (3) by approx. 10 mm.  
Pull the bottom of the cover slightly towards you.

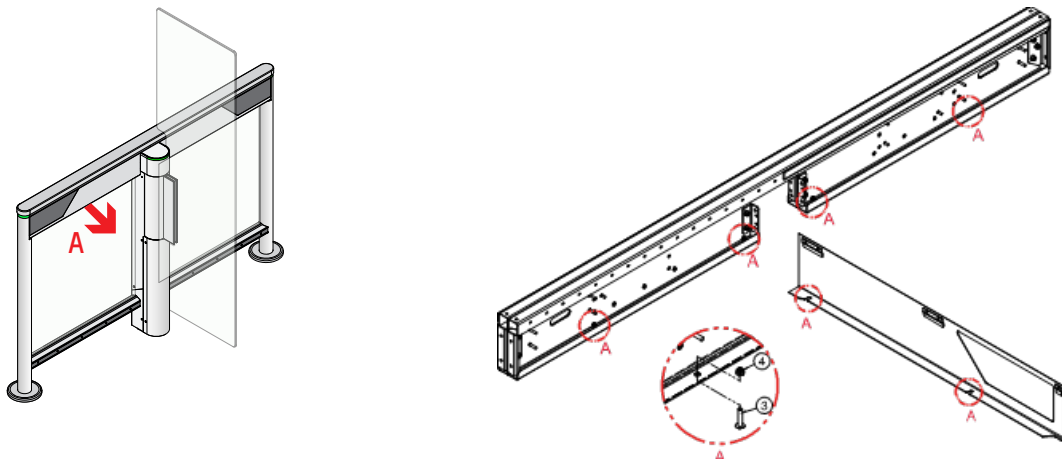


Fig. 50 - Installing/Removing railing panels

B) Pull the cover towards the front of the railing.

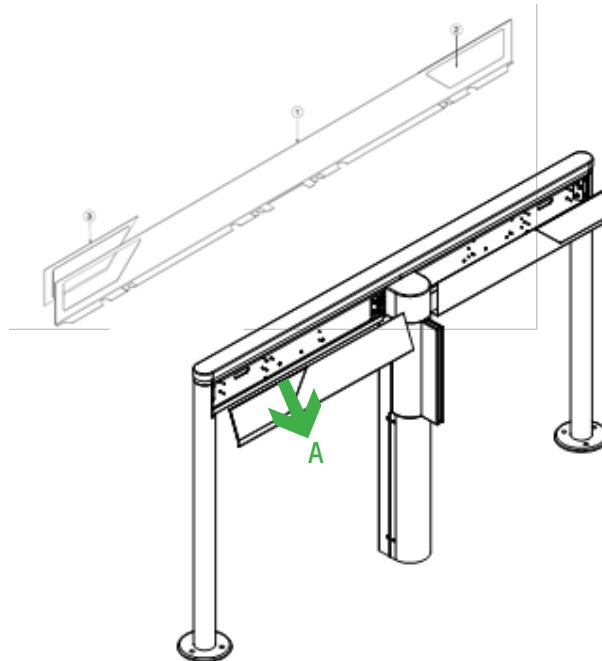


Fig. 51 - Installing/Removing the railing cover

## 6.5.5. KINEMATIC COVER (ACCESS TO STATUS LIGHT)

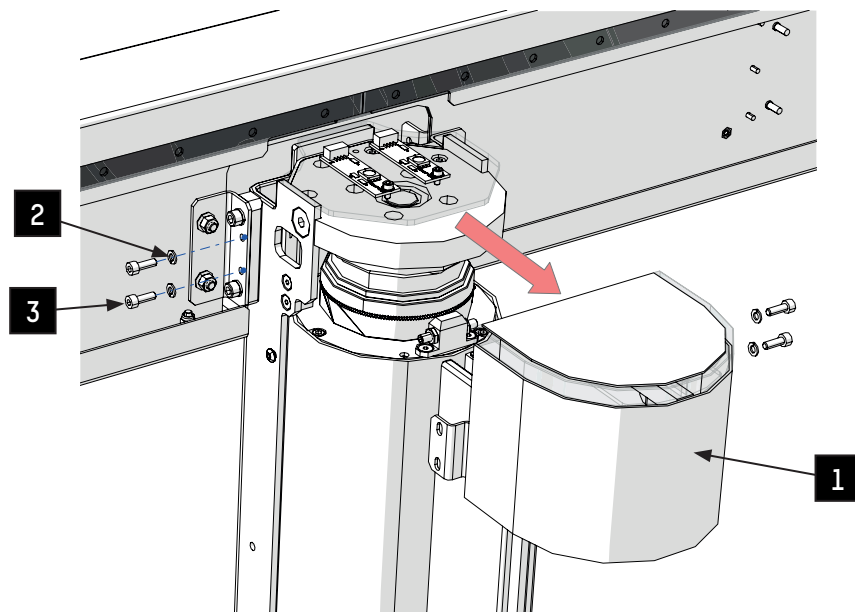


Fig. 52 - Installing/Removing the kinematic cover

REF.	DESCRIPTION
1	Kinematic pole top cover
2	Spring washer M4 (4x)
3	Screw M4x12 (4x)

## 6.5.6. TOP COVER OF THE RAILING (= SHELF)

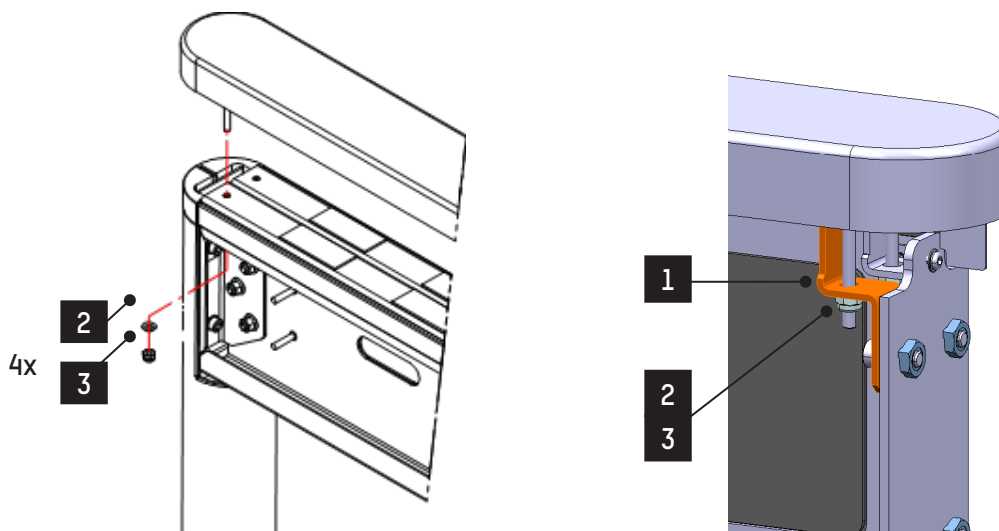


Fig. 53 - Installing/Removing top cover railing

REF.	DESCRIPTION
1	Reinforcement for anchoring the top cover
2	Flat washer M4
3	M4 nut

## 6.5.7. RAILING/END POSTS

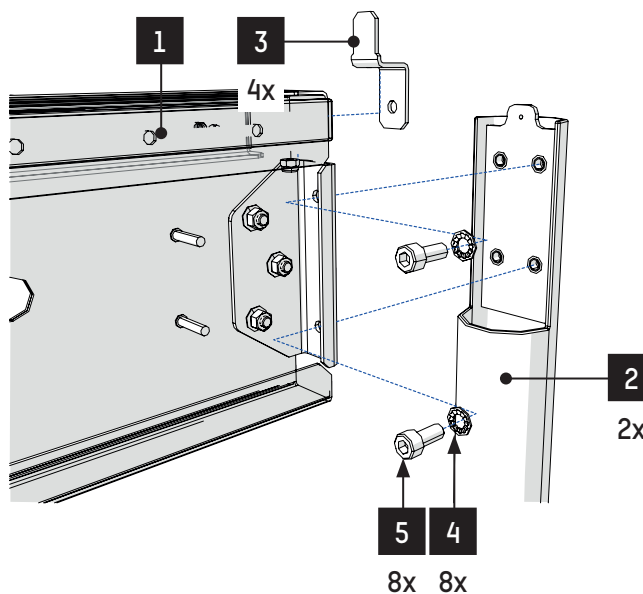
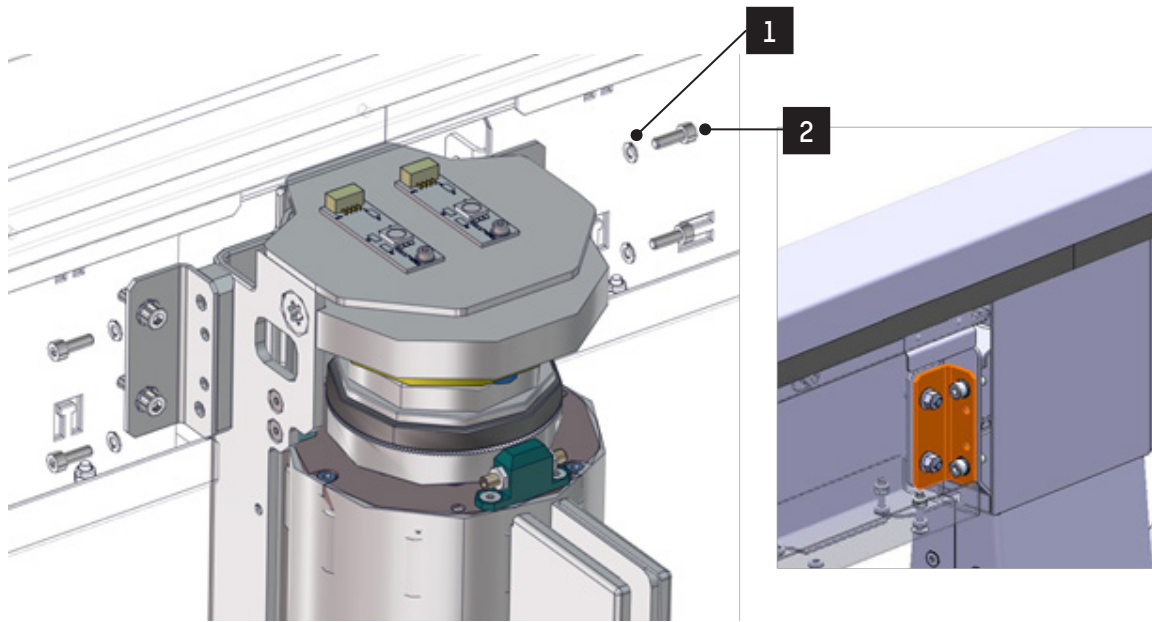


Fig. 54 - Installing/Removing end post railing

REF.	DESCRIPTION
1	Railing assembly
2	Railing end post
3	Reinforcement for fixing the top cover (⇒ Chap. 6.5.5)
4	Fan washer M5
5	Screw M5x12

## 6.5.8. RAILING/KINEMATIC POST



SlimLane 940, 940SC1  
950 & 950SC

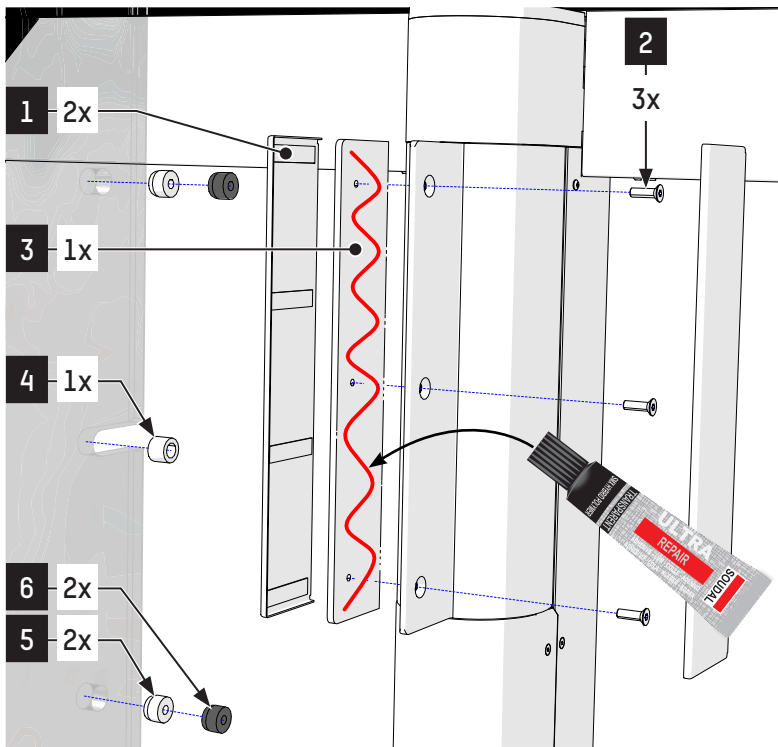
SlimLane 944, 944SC1  
945 & 945SC

Fig. 55 - Installing/Removing kinematic post railings

REF.	DESCRIPTION
1	Fan washer M5 (4x)
2	Screw M5x8 (4x)



## 6.5.9. MOBILE OBSTACLE



MOBILE OBSTACLE				
FP :	HT :	STD	Option	Gluing
TWIN 550	900	●	○	✓
	550	○	●	✓
	1500	○	●	✓
	1700	○	●	✓
600	900	●	○	✗
	600	○	●	✗
	1500	○	●	✓
	1700	○	●	✓
900	900	●	○	✗
	900	○	●	✗
	1500	○	●	✓
1200	1700	○	●	✓
	900	●	○	✓

Fig. 56 - Installation/Removal of mobile obstacles

REF.	DESIGNATION
1	Cover glued on the clamp (degrease the metal parts before applying the double-sided adhesive!)
2	M6 screw x 20
3	Fixing clamp
4	Plastic nozzle (for glass obstacle only)
5	Spacer Ø 13.8 mm for SlimLane mobile obstacle (White) <sup>[1]</sup>
6	Spacer Ø 13.6 mm for SlimLane mobile obstacle (Black)

Regular maintenance of the obstacle surfaces prevents any risk of malfunctioning of the detection cell.  
Do not put a sticker on the obstacle, in the detection area of the cells, so as not to disturb the detection system.



**FOR GLASS PANEL HEIGHTS FROM 1500 MM AND ABOVE, IT IS NECESSARY TO USE THE GLASS PANE SUPPORT WEDGE (4) AND GLUE THE PANES TO THE SKIRTING BOARD TO PREVENT THEM FROM SLIPPING. (FOLLOW THE GLUING INSTRUCTIONS PGV-NC-EN).**

**AUTOMATIC SYSTEMS RECOMMENDS THE "TROLLEY" OPTION WHEN USING HIGH PANES.**

<sup>[1]</sup> If the white spacer Ø 13.8 mm (5) does not fit into the window seat, use the black one Ø 13.6 mm (6).

## 6.5.9.1. INCREASING THE VISIBILITY OF MOBILE OBSTACLES



Fig. 57 - Self-adhesive checkerboard (0/6980/623)

As soon as the height of mobile obstacles exceeds 1500 mm from the ground, Automatic Systems recommends applying a chequered sticker to increase the visibility of obstacles and thus prevent users from accidentally hitting them.



This sticker is supplied as standard with every SlimLane product and can therefore be applied to all heights of mobile obstacles.

The information below explains how to place the chequered sticker in order to optimise the visibility of obstacles:

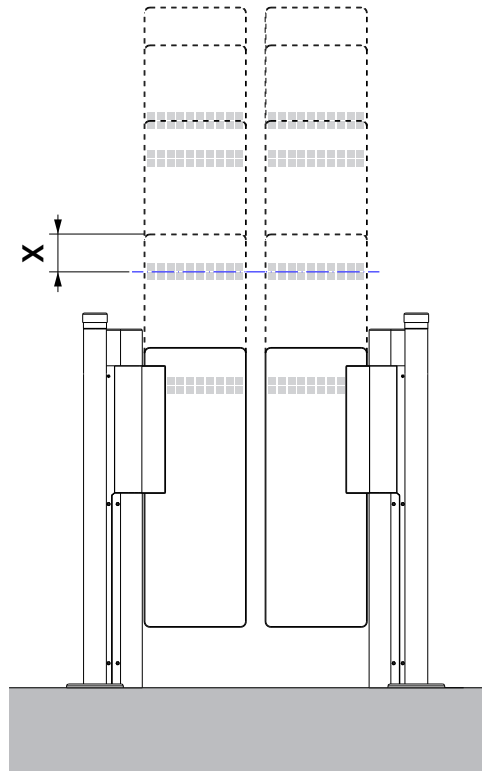
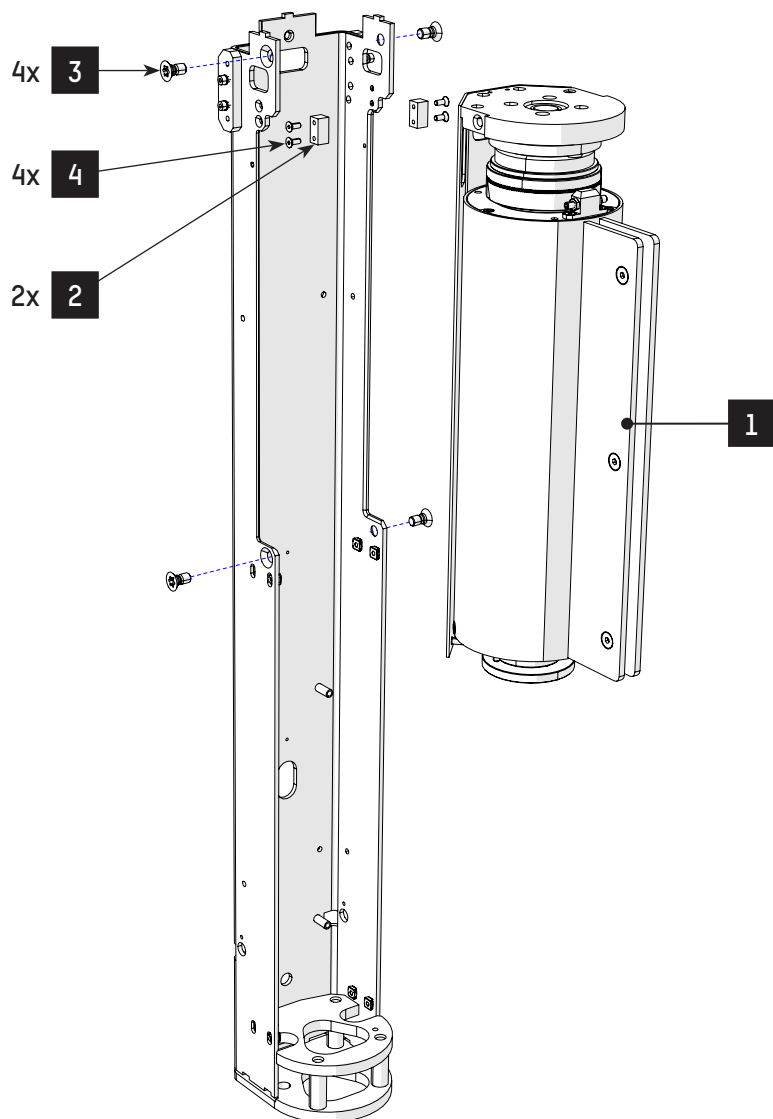


Fig. 58 - Positioning of the checkerboard sticker

OBSTACLE HEIGHT	X <sup>1</sup>
900	100
1200	100
1500	100
1700	200
1800	300

<sup>1</sup> x = distance between the horizontal axis of the chequered sticker and the top of the mobile obstacle.

## 6.5.10. MOTOR

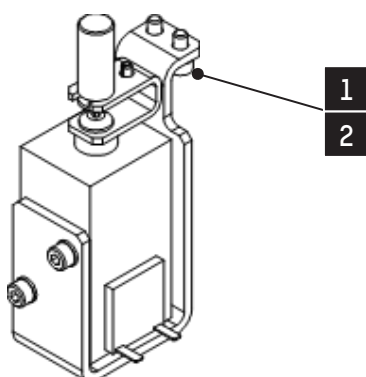


REF.	DESCRIPTION
1	Motor assembly
2	End stop (allows adjustment of the obstacle in the open position)
3	Screw M8x16 (for attaching the mechanism to the frame)
4	Screw M4x10 (for attaching the end stops (2))

Fig. 59 - Motor Installation/Removal

## 6.5.11. BLOCKING ELECTROMAGNET (OPTIONAL)

The electromagnet is attached to the motor unit (⇒ Chap. 7.6.1).



REF.	DESCRIPTION
1	Screw M4x8
2	Washer M4

Fig. 60 - Installing/Removing blocking electromagnet

## 6.5.12. SIDE RAILING PANE (OPTIONAL)

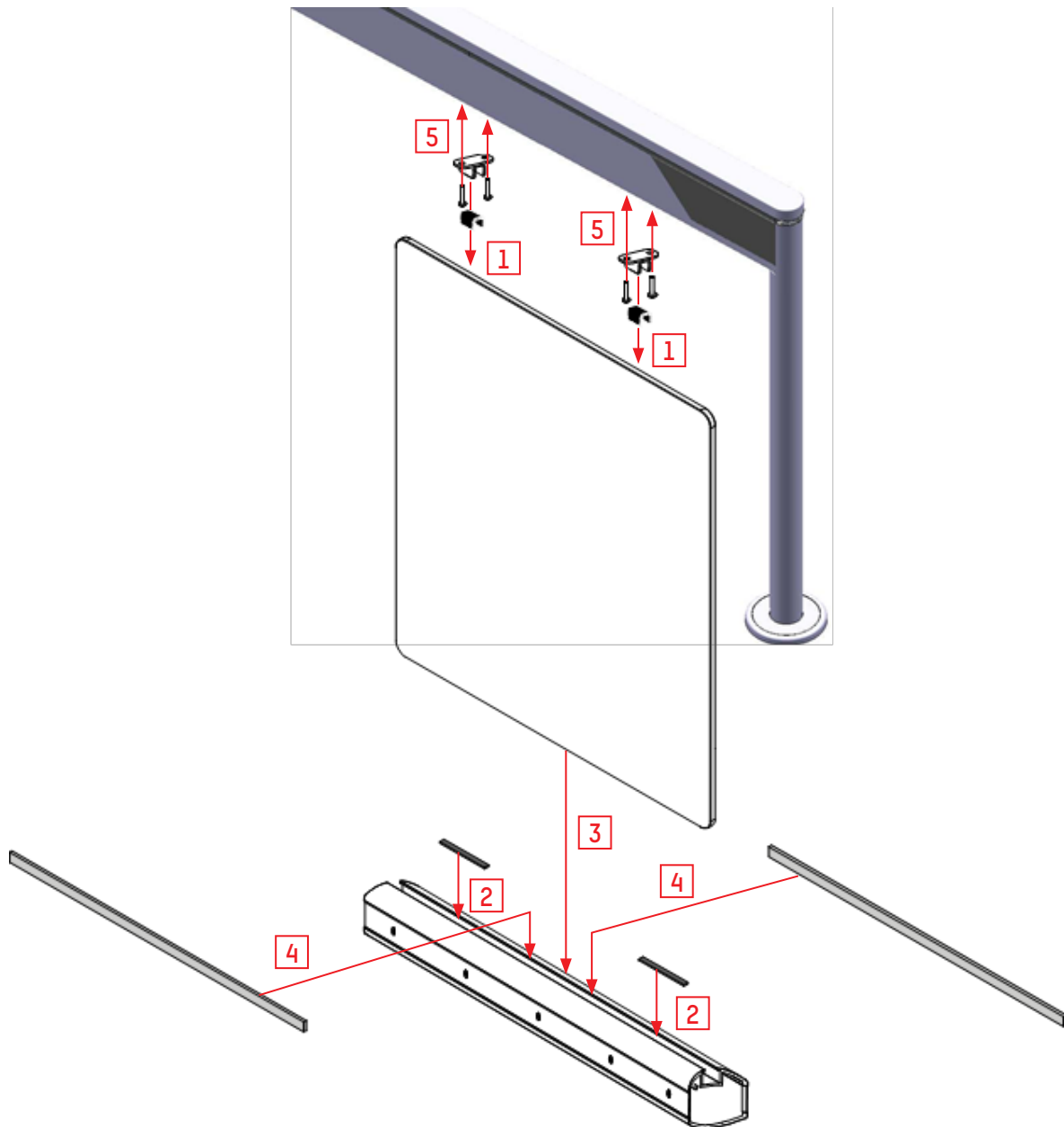



Fig. 61 - Installing/removing side railing pane

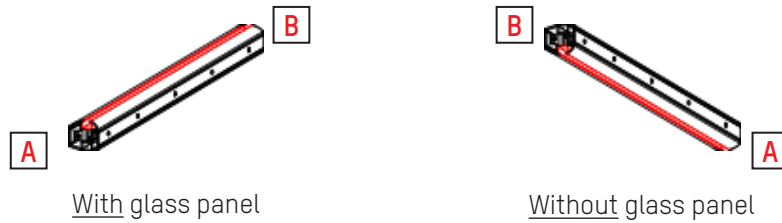
To assemble the pane:

1. Insert the black neoprene gasket (20 cm available) into the U-leg, cut off the excess and place the assembly on top of the pane.
2. Cut out the grey polyethylene gasket (50 cm available) and distribute it in the bottom of the profile groove.
3. Place the pane in the profile groove.
4. Spray the bottom of the glass pane with cleaning fluid and insert the light-grey rubber seal (2.60 m available) into the groove, cm by cm, on both sides at the same time.
5. Screw the U-leg to the railing.

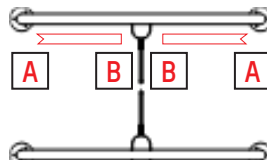
 The illustration below shows the assembly principle of an intermediate railing profile (with detection cells on one side only), which is the most complete.

## 6.5.13. REINFORCED PROTECTION CELLS + TROLLEY PROTECTION (OPTION)

**Note 1:** In the absence of an optional glass railing, the profile groove is positioned downwards:



**Note 2:** The profile is mounted in 2 different directions depending on whether it is located before or after the obstacle (the flat end B makes the junction with the central post):



**Note 3:** The illustration below gives the mounting principle of an intermediate railing profile (including transmitter cells on one side and receiver cells on the other), which is the most complete. For end profiles (transmitter OR receiver), unnecessary elements are not present.

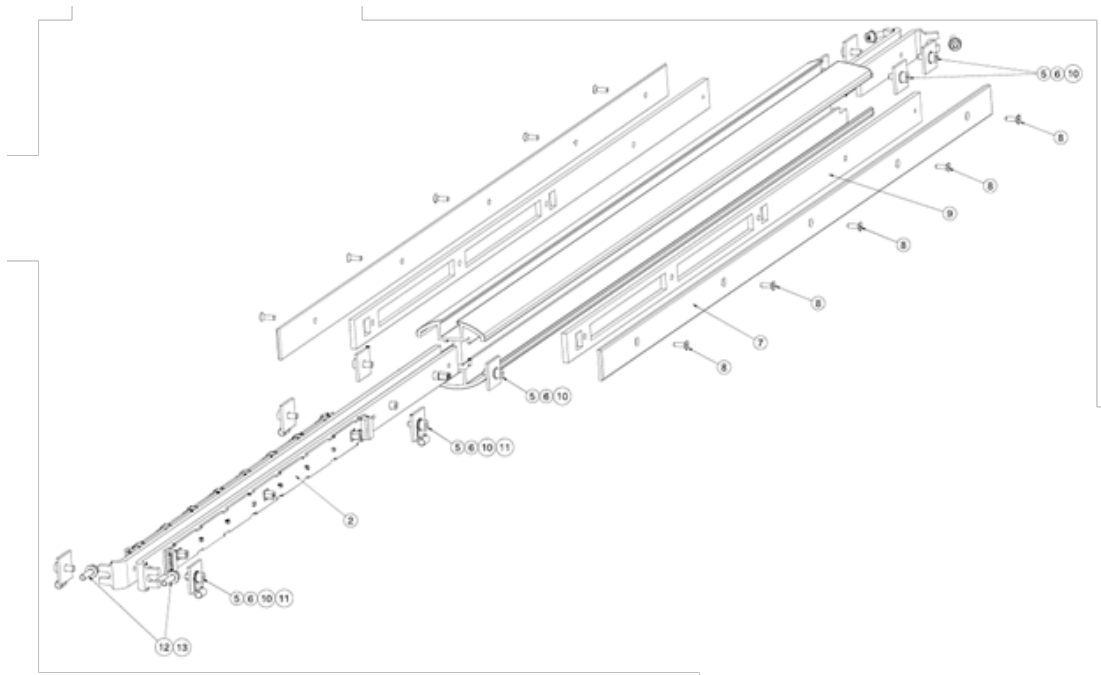


Fig. 62 - DIRAS exploded view

REF.	DESCRIPTION	REF.	DESCRIPTION
1	Aluminium profile support for DIRAS	9	Plexiglass support dish for receiver cells
2	DIRAS transmitter assembly for trolley detection	10	Clam dish
3	DIRAS receiver assembly for trolley detection	11	Stainless steel cable tie <b>TIGHTEN THE STRIPPED PART OF THE CAN CABLES (SHIELD) IN THE CLAMP.</b>
4	DIRAS profile mounting plate		
5	Washer M4		
6	Screw M4 x 10		
7	Protective plexiglass	12	Stainless steel washer M4
8	Screw M3 x 10		

## 6.5.14. MOTHERBOARD (CPU)



USE OF ANTISTATIC GLOVES OR BRACELETS (ELECTROSTATIC DISCHARGE) IS ESSENTIAL WHEN HANDLING ELECTRONIC PRINTED CIRCUIT BOARDS, AT THE RISK OF THE WARRANTY BEING VOIDED.

WHEN REPLACING AN ELECTRONIC CIRCUIT BOARD, SET ITS CAN ADDRESS AND THE END OF BUS SWITCH (⇒ ELECTRICAL TECHNICAL FILE).

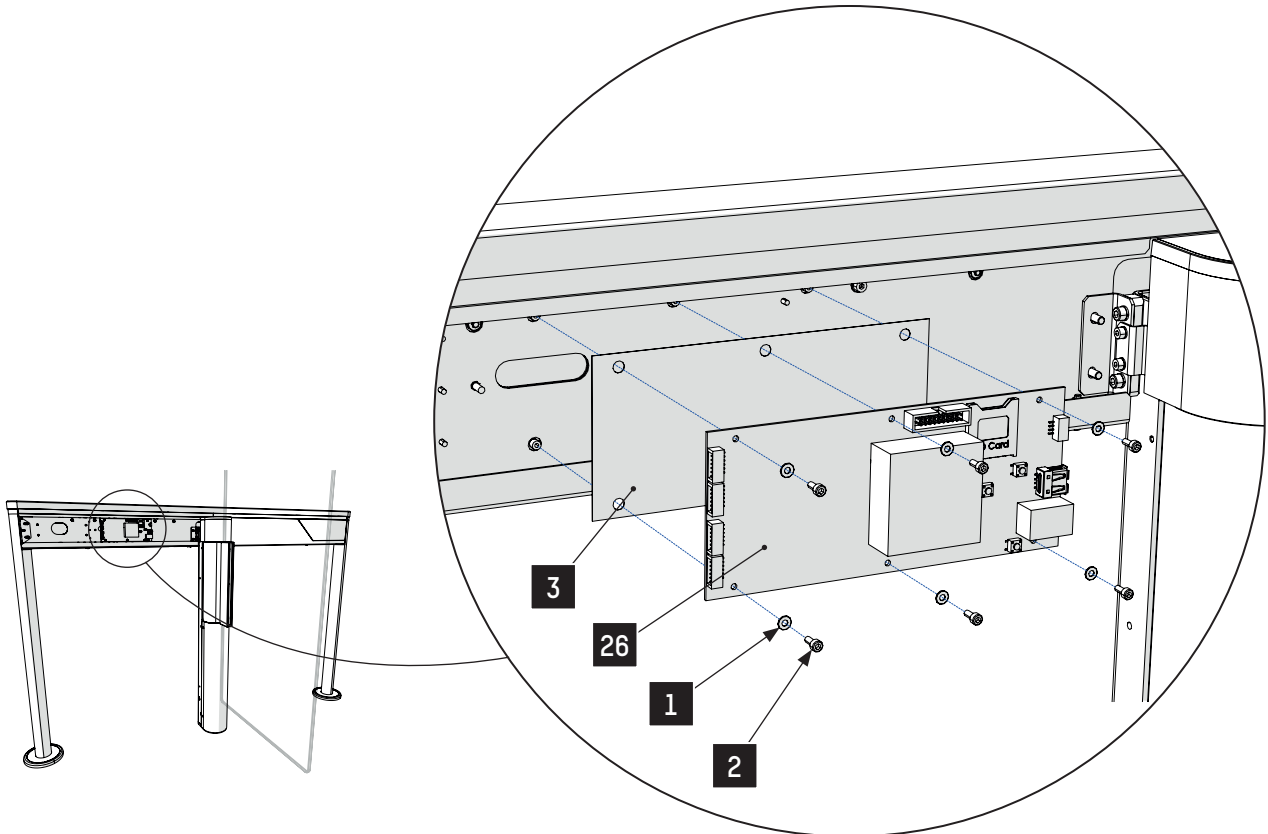


Fig. 63 - Location and motherboard (CPU) exploded view

REF.	DESCRIPTION
1	Flat washer M3
2	Screw M3x8
3	Insulating film glued to the railing
26	Motherboard (= control module = CPU board)

## 6.5.15. POWER SUPPLY BOARD

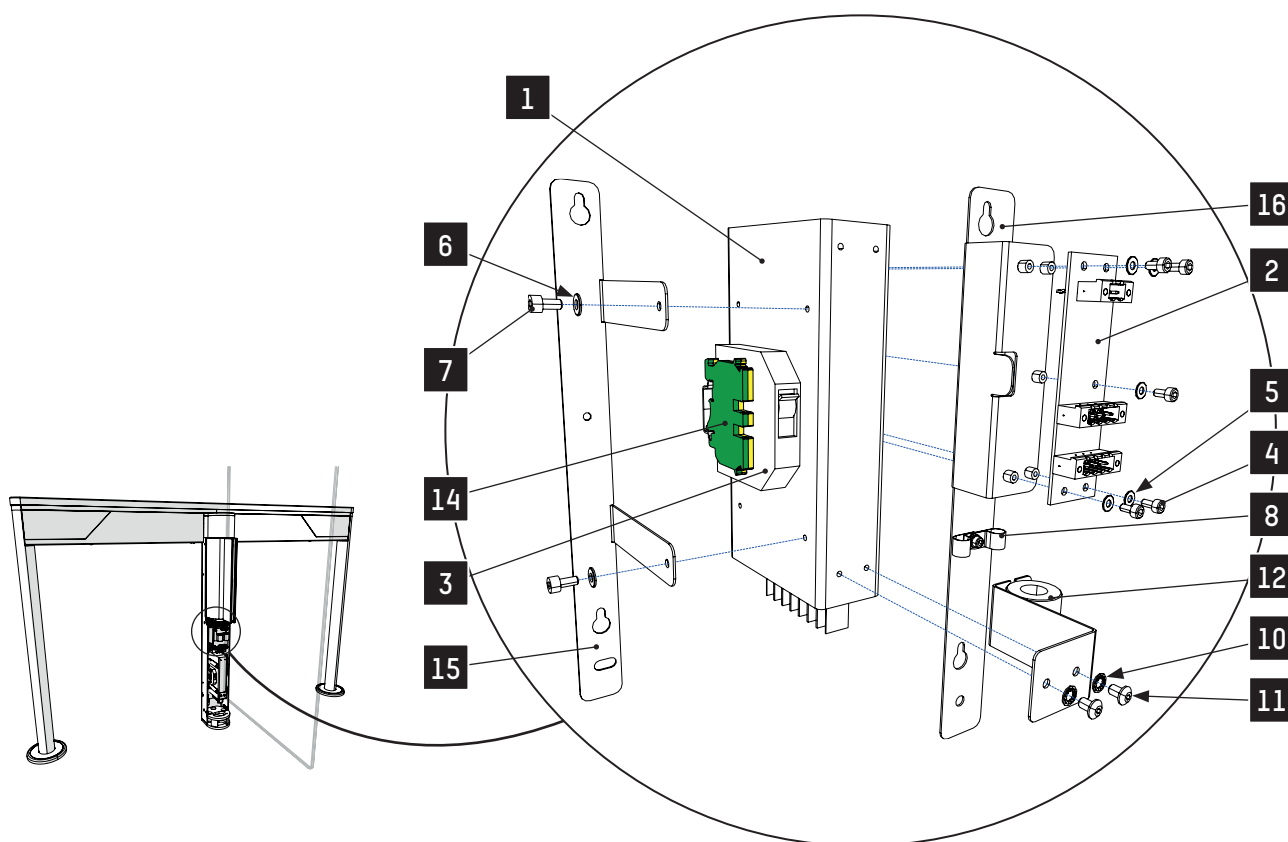


Fig. 64 - Location and power supply board exploded view

REF.	DESCRIPTION
1	Power supply
2	24 VDC distribution board
3	Thermal-magnetic
4	Screw M3x6 (5x)
5	Washer M3 (5x)
6	Washer M4 (2x)
7	Screw M4x8 (2x)
8	Steel cable tie
9	Ferrite support
10	Fan washer M4 (2x)
11	Screw M4x6 (2x)
12	Ferrite
13	Screw M4x10 (4x)
14	Earth connection terminal
15	Power supply support and terminal block for straight panel
16	Board support dish for straight panel

## 6.5.16. INPUT/OUTPUT CIRCUIT BOARD



USE OF ANTISTATIC GLOVES OR BRACELETS (ELECTROSTATIC DISCHARGE) IS ESSENTIAL WHEN HANDLING ELECTRONIC PRINTED CIRCUIT BOARDS, AT THE RISK OF THE WARRANTY BEING VOIDED.

WHEN REPLACING AN ELECTRONIC CIRCUIT BOARD, SET ITS CAN ADDRESS AND THE END OF BUS SWITCH (⇒ ELECTRICAL TECHNICAL FILE).

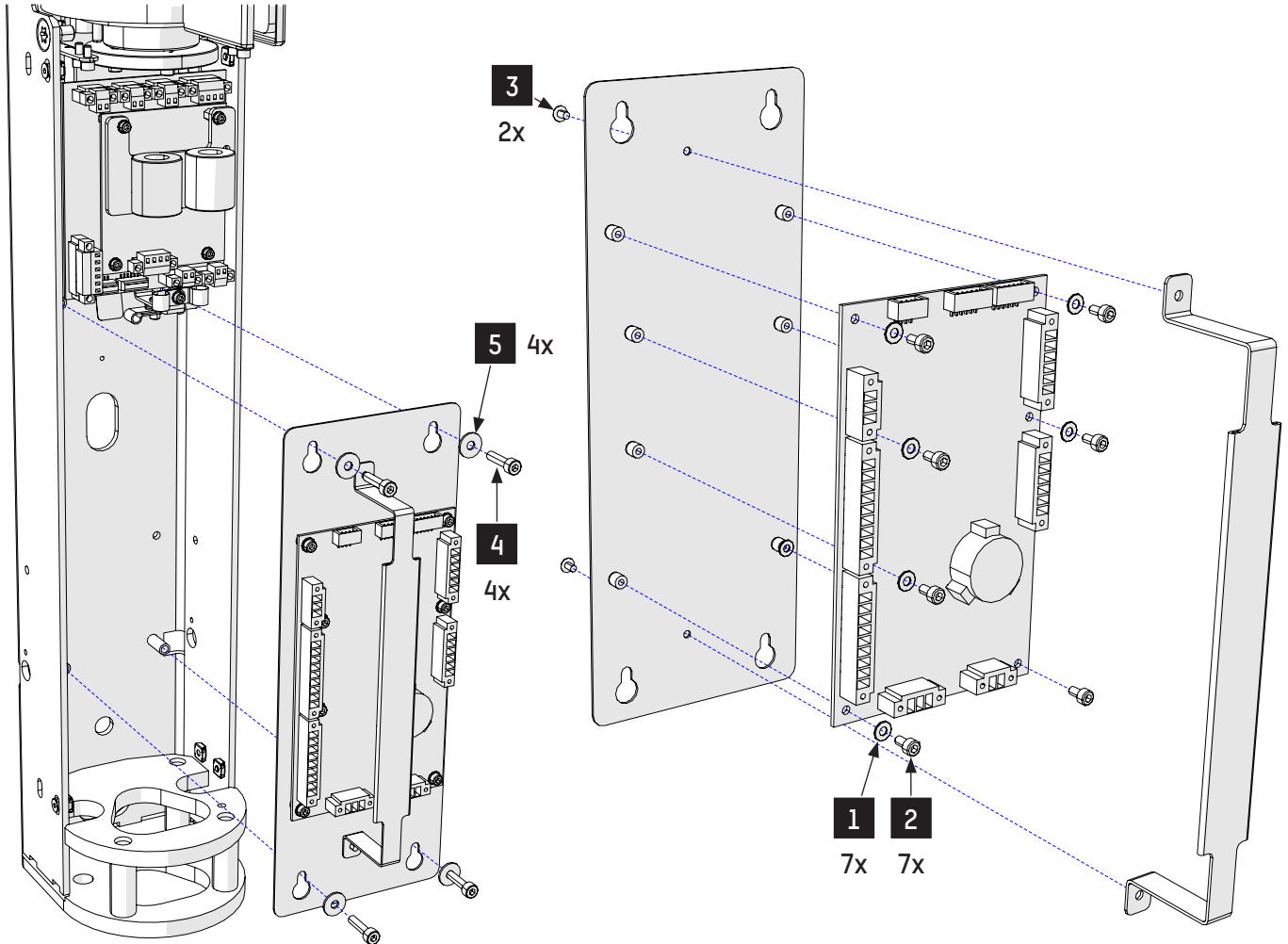


Fig. 65 - I/O circuit board exploded view

REF.	DESCRIPTION
1	Flat washer M3
2	Screw M3x6
3	Aluminium pop rivet 3x5
4	Screw M4x10
5	Flat washers M4



## 6.5.17. MOTORIZATION BOARDS



USE OF ANTISTATIC GLOVES OR BRACELETS (ELECTROSTATIC DISCHARGE) IS ESSENTIAL WHEN HANDLING ELECTRONIC PRINTED CIRCUIT BOARDS, AT THE RISK OF THE WARRANTY BEING VOIDED.

WHEN REPLACING AN ELECTRONIC CIRCUIT BOARD, SET ITS CAN ADDRESS AND THE END OF BUS SWITCH (⇒ ELECTRICAL TECHNICAL FILE).

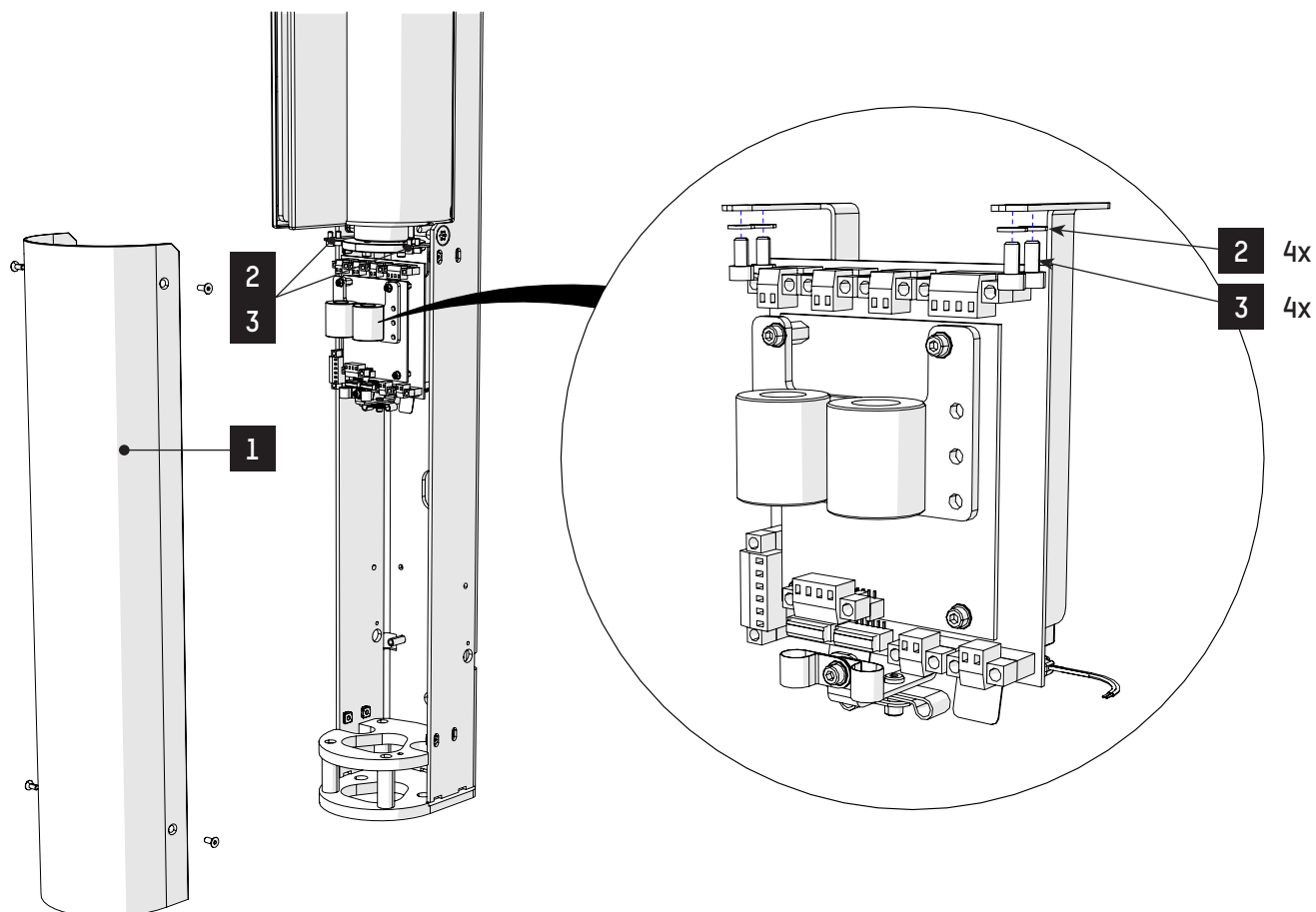


Fig. 66 - Motorization board location

REF.	DESCRIPTION
1	Removable kinematic panel
2	Spring washer M4
3	Screw M4x8

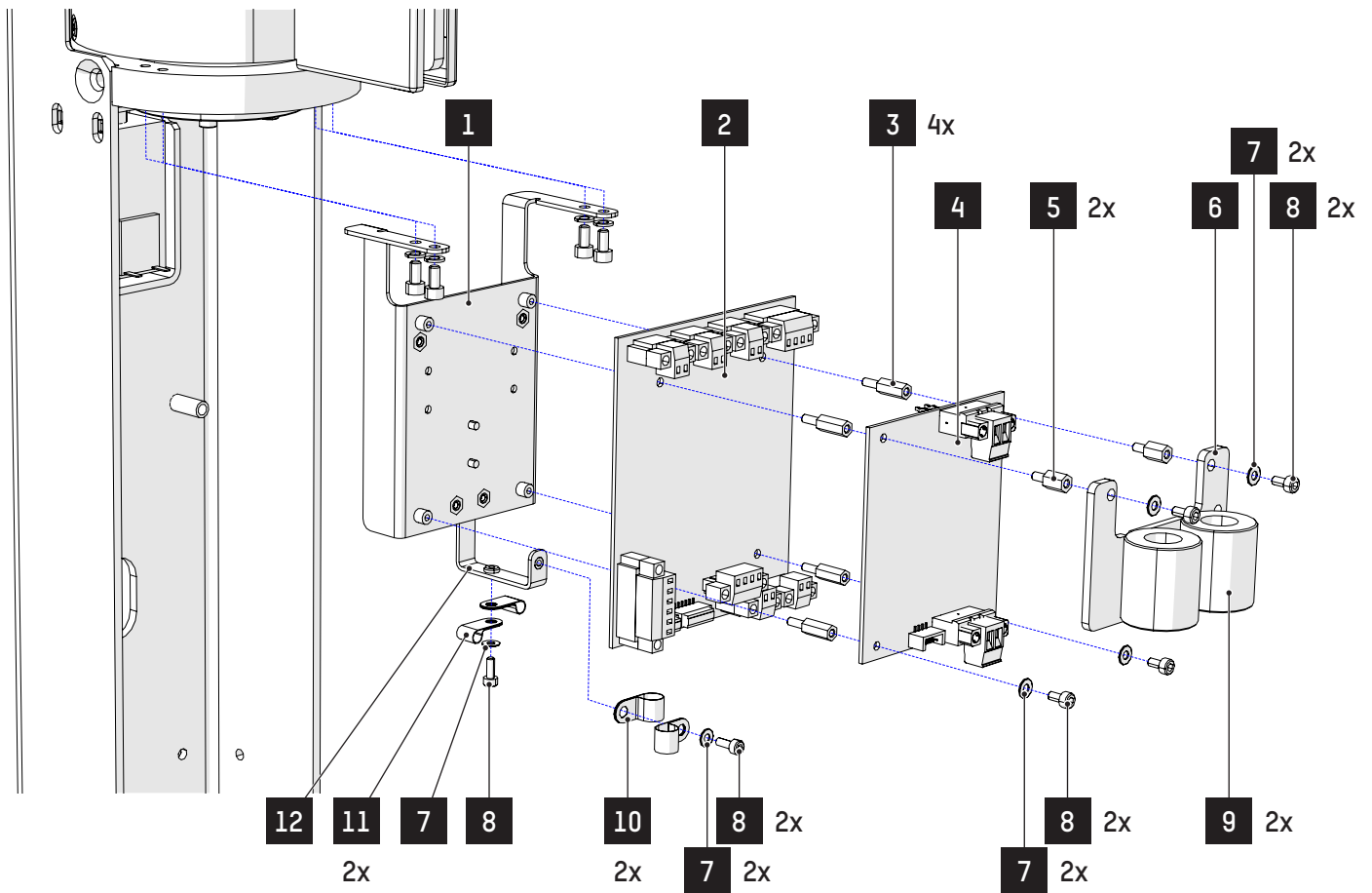


Fig. 67 - Motorization boards exploded view

REF.	DESCRIPTION
1	Motorization board bracket
2	AS1185 (or AS1169) motorization board
3	Spacer 12 mm
4	AS1170 motorization board
5	Spacer 8 mm
6	Ferrite bracket
7	Washer M3
8	Screw M3x6
9	Ferrite
10	Stainless steel cable tie
11	Aluminium cable tie
12	Cable bracket

## 6.5.18. ORIENTATION LIGHT

To access the light, remove the upper railing cover (⇒ Chap. 6.5.6).

In the absence of the light, the opaline screen is replaced by a black band.

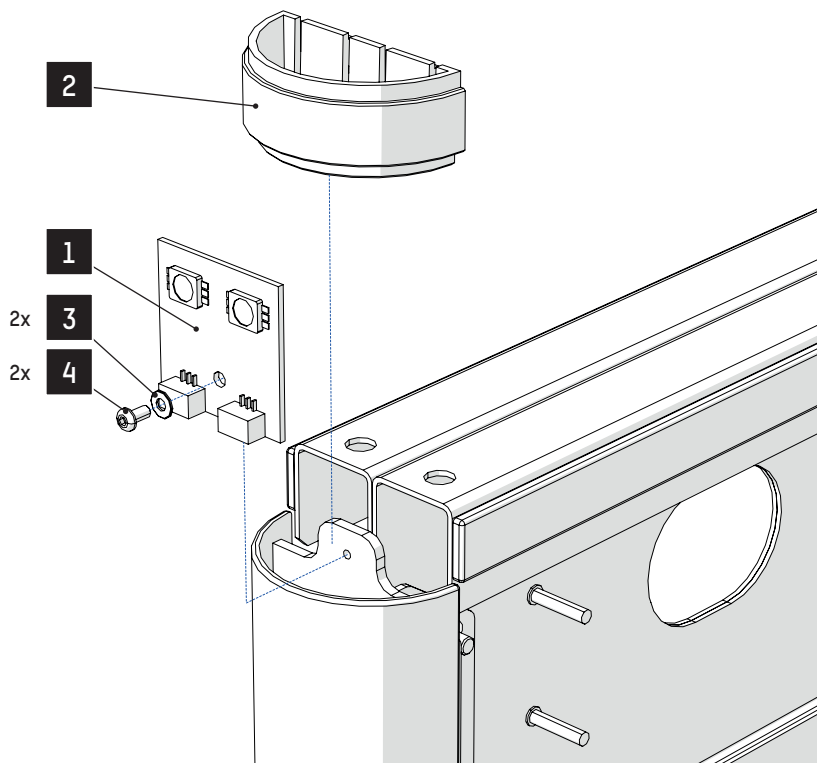


Fig. 68 - Orientation light exploded view

REF.	DESCRIPTION
1	Orientation light board AS1171
2	Screen (mounted/dismounted by simply fitting into the railing)
3	Flat washer M3
4	Screw M3x6

## 6.5.19. DIRAS DETECTION CELLS

1. Remove the railing panel (⇒ Chap. 6.5.4).
2. Remove the motherboard (⇒ Chap. 6.5.13).
3. Unscrew the bracket (1) from the railing.
4. Disconnect the electrical connectors at both ends of the DIRAS board to be replaced.
5. Unscrew the circuit board from its bracket (1).
6. Fix the new DIRAS board and the filter screen on the bracket, respecting the orientation of the circuit board:
  - For AS1642 transmitter boards (on the left-hand rail), cell no. 0 is on the left of the board.
  - For AS1643 receiver boards (on the right-hand rail), cell no. 0 is on the right of the board. (see illustration below)
7. If necessary, plug in the AS1606 end of bus bus board (⇒ Schémas électriques).
8. Connect the electrical connectors at both ends of the DIRAS board.
9. Tighten the stripped part (shield) of the CAN cables in clamp 12.
10. Check the functionality of the cells (all settings are carried out automatically).

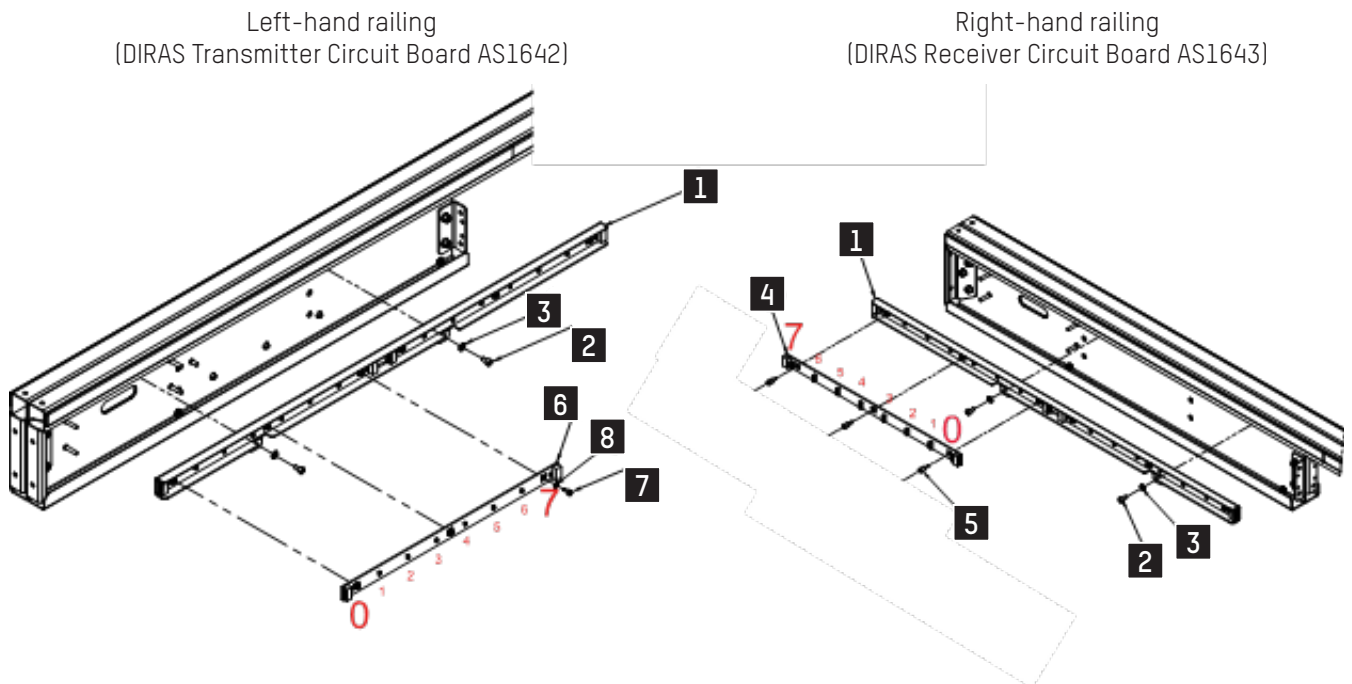


Fig. 69 - DIRAS railings exploded view

REF.	DESCRIPTION
1	DIRAS board bracket
2	Screw M4x8
3	Washer M4
4	DIRAS Receiver Circuit Board AS1643
5	Screw M3x6
6	DIRAS Transmitter Circuit Board AS1642
7	Screw M3x8
8	Washer M3

## 6.5.20. END POST WITHOUT BASE PLATE (OPTION)



Fig. 70 - End post without base plate (option)

See document PGV-ACC-EN-00 for mounting without base plate.

## 6.5.21. KINEMATIC CENTRAL COVER WITHOUT STATUS LIGHT (MODEL FOR ASC OPERATION)

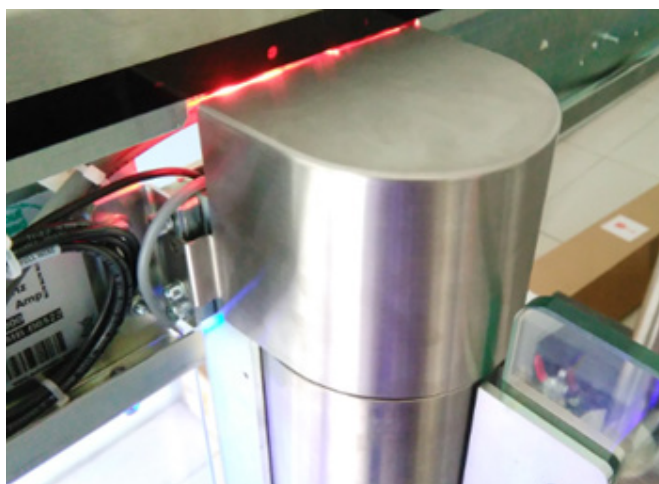
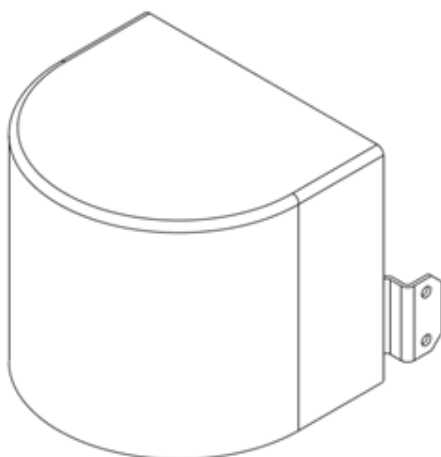


Fig. 71 - Kinematic cover without status light

## 7. OPERATION

### 7.1. POWERED OPERATION MODE

The SlimLane lanes can operate in 2 distinct modes, to be defined on order (the motorization is different):

- **'SECURI-SAFE'** mode focusing on Safety (default mode):  
When a forced entry is attempted in either direction of passage (detected by the angle encoder), the electromagnetic brake is applied to lock the obstacles.
- **'EGRESS'** optional mode focusing on User Protection and complying with fire safety standards:
  - Obstacles are released **in the direction of evacuation only (direction B)** by a pressure of max. 220 N). This initial movement (detected by the encoder) is then completed by the motors, so as to completely free up passage.
  - A sound and light alarm notifies users and the guard of an evacuation in progress.
  - After a configurable time delay, the obstacles will automatically close again and the equipment will return to the previous operating mode



Most of the operations described below can be configured using the Man-Machine Interface.  
(see dedicated manual).

### 7.2. STATE OF OBSTACLES AT REST

At rest, obstacles may be in one of the following states (configurable):

- **NC** = Normally Closed (default mode, to which the descriptions in this manual refer, unless otherwise indicated):  
At rest, the obstacles are in the closed position and open upon receipt of passage authorization. Passage violations (intrusion & fraud) are signalled by audible and visual alarms (lights) and the obstacles are held in the closed position or close automatically in order to prevent any intrusion into the secured zone.
- **NO** = Normally Open:  
At rest, the obstacles are in the open position. The obstacles only close if a user attempts to pass through without authorization. In this case, too, audible and visual alarms are activated.
- **FAL** = Free Access Lane:  
The obstacles are in the open position in the direction of evacuation at all times (direction B). Only sound and light alarms are activated in case of unauthorized access and violations.

### 7.3. OPERATING MODE BY DIRECTION OF PASSAGE

Except in the event of technical fault or evacuation (when the lane is automatically configured), the operating mode can be configured independently in the two directions of passage:

- **Free**: any pedestrian may pass through the lane in the corresponding direction.
- **Controlled**: only a pedestrian with passage authorization may pass through the lane in the corresponding direction. In this mode, violations are detected.
- **Locked**: no pedestrian may pass through the lane in the corresponding direction.

### 7.4. PASSAGE AUTHORIZATIONS

The passage authorization signal must be sent to an Input of circuit board AS1168 (⇒ Chap. 12.4).

When an authorization signal is received, 2 (configurable) timers start, corresponding to the time allowed for the user to enter and pass through the lane, after which the obstacles close.

Successive passage authorizations are stored for each direction and authorize the corresponding number of passages, regardless of the order of arrival in each direction.

## 7.5. FORCED OPEN MODE

When the **Locked Open** mode is activated, the obstacles are opened and remain open, so that passage through the lane takes place freely in both directions.

This operation mode has priority over all the other modes.

The **Locked Open** mode is triggered by an external contact (input CN7 on circuit board AS1168) and is active as long as the input is active.

## 7.6. POWER FAILURE

The operating mode in the event of a power failure is one of the following, regardless of the operating mode under power (EGRESS or SECURI-SAFE):

- As a standard, the brake returns to its rest position and unlocks the obstacle, which can then be opened by a simple push.
- As an option, the equipment can be equipped with an emergency power supply for automatic opening and keeping the obstacles open in the event of a power failure (⇒ Chap. 7.6.1).

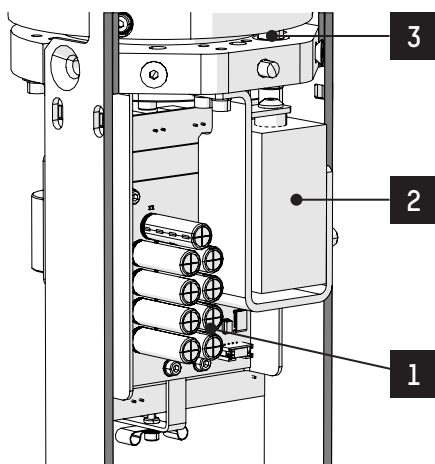
### 7.6.1. BACKUP POWER SUPPLY - AS1665 BOARD (OPTIONAL)



When the device is first connected, the system is not operational. It is necessary to switch on devices equipped with backup power supply for 1 hour to allow the capacitors of the AS1665 board to be fully charged.

In the event of a power failure, the AS1665 board (1) provides the power to control the motorized opening of the obstacles in the direction of evacuation.

A **Normally Closed** solenoid (2) then locks the obstacles in this position to keep the passage completely clear.



(Rear of the kinematic post)

REF.	DESIGNATION
1	AS1665 board
2	Electromagnet
3	Blocking lock

Fig. 72 - Location of backup power supply

## 7.7. TECHNICAL FAULT

The presence of technical faults is signalled on an output of the AS1168 circuit board as well as on the Service Interface and are listed in the chapter Faults and remedies.

Faults are classified in 2 categories: minor and major. Only certain major faults result in the obstacles being closed and the lane being placed out of service; other faults will not affect the operating mode.

## 7.8. VIOLATIONS

A violation is an unauthorized movement in the lane:

- **Intrusion:** if the user does not pass through the obstacles,
- **Fraud:** if the user passes through the obstacles,

For each direction of passage, violations are defined as described below.

When a violation is detected:

- the obstacle closes slowly,
- the buzzer sounds,
- the lights turn red, the status light flashes in the part of the lane where the violation took place,
- a signal is sent to the AS1168 circuit board.

### 7.8.1. "INTRUSION" VIOLATION

An intrusion is said to have occurred when someone is detected in the lane when it is at rest.

It is declared after a time delay allowing the user in the lane to present a passage authorization.

### 7.8.2. "TAILGATING" VIOLATION

This violation is declared when an unauthorized person follows an authorized user during their passage.

### 7.8.3. "WRONG WAY" VIOLATION

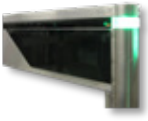

This violation is declared when an unauthorized person is detected in one direction while an authorized passage is under way in the other direction.

## 7.9. SOUND AND LIGHT ALARMS

### 7.9.1. ORIENTATION LIGHT

Orientation lights consist of an LED circuit and are integrated into the railing posts.

They can operate in 2 modes, which can be configured via the Maintenance Interface:

	REFLECTION OF THE OPERATING MODE (DEFAULT) = STATE OF THE LANE	REFLECTION OF THE PASSAGE = INDICATION OF THE SEQUENCE OF PASSAGE
<b>GREEN</b> 	Lane in Controlled mode. Lane in Free mode Lane in Evacuation mode	Passage authorized: request passage authorization and enter the lane
<b>RED</b> 	Lane in Prohibited mode Lane in Maintenance mode.	Passage under way or prohibited
<b>FLASHING RED</b>	Initial power-up Lane Out of Service.	



## 7.9.2. STATUS LIGHT

The status light is integrated into the upper section of the kinematic post and is comprised of two LED circuits to operate independently in the 2 directions of passage.

- **Off** Lane powered off
- **White** Lane initializing
- **Blue** Lane in Controlled mode, waiting for a request for passage authorization
- **Flashing green** Access to lane authorized in the direction shown  
Lane in Evacuation mode
- **Green** User must pass the obstacles before losing the passage authorization  
Lane in Free mode
- **Red** Passage Prohibited  
Passage in progress in the opposite direction  
Lane Out of Service  
Lane in Maintenance mode
- **Flashing red** Violation detected



## 7.9.3. SOUND ALARM (BUZZER)

The buzzer is activated when an anomaly is detected during the passage sequence:

- **Continuous sound** Intrusion or prolonged presence in the security zone during open/close
- **Intermittent sound** Fraud

## 8. INSERTING A SERVICELANE TO THE RIGHT OF A LANE

In the various configurations available, there is the possibility of adding a PMR type passageway to be integrated **to the right** of an existing straight hybrid SlimLane intermediate gate (seen in direction A).

This configuration is possible on models SL940, SL950 and SL944, in normal or SC (Short Cabinet) versions, but in this case the EP option is not available to avoid the risk of finger entrapment.

The ServiceLane does not require an additional railing as the kinematic column with the mobile obstacle mechanism is part of the right-hand hybrid gate:

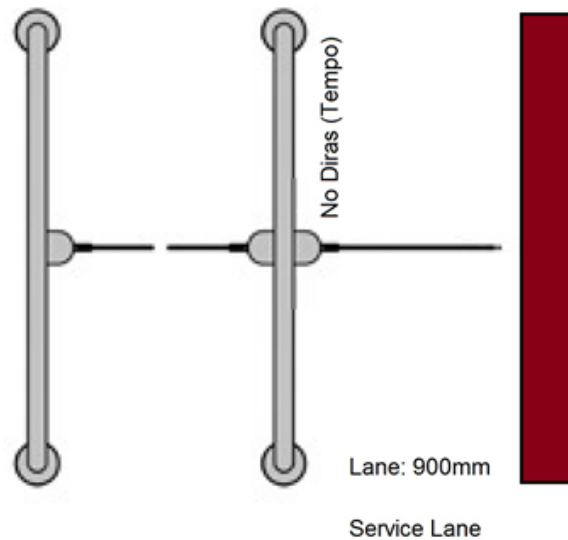


Fig. 73 - ServiceLane

### 8.1. TECHNICAL DATA

The technical characteristics are as follows:

- Passage width: 900 mm (845 mm wide mobile obstacle)
- There are three possible choices for the height of the obstacle (from the ground): 900 / 1000 / 1200 mm
- No presence detection cell as there is no opposite railing allowing the formation of DIRAS cell pairs. The re-closing is therefore done after a time delay, without detection of passage.
- The presence of a wall or another type of obstacle is therefore necessary to delimit the passage width.
- The passage is equipped as standard with a status light on the upper part of the kinematic post.


### 8.2. ADAPTATIONS TO THE SL STANDARD LANE

In the standard version, made up of two railings, the power supply and the electronic boards for managing the lane are distributed between the two elements that delimit the passage width.

All the electronics need to be reorganised as the ServiceLane has only one kinematic column:

- The 24 VDC power supply is provided by the adjacent lane (located on the left).
- An additional AS1172 24 VDC distribution board is therefore required and is also placed in the adjacent column.
- The main circuit breaker for switching off the ServiceLane is the main circuit breaker in the adjacent corridor. This means that two lanes must be switched off during maintenance work.
- The contents of the ServiceLane kinematics column is very similar to the left-hand column of a standard lane, with its AS1168 I/O board and AS1185 + AS1170 motorization boards.
- The AS1190 CPU board is integrated in the usual place in the railing (⇒ Chap. 4.2) but there are no DIRAS cells.

## 9. TECHNICAL SPECIFICATIONS

- AISI 304L brushed stainless steel housing, 1.5 mm thick.
- Steel frame with RoHS zinc-plated corrosion resistance.
- Tempered safety glass obstacles (fixed and mobile), 10 mm thick.
- Weight:
  - 62 kg per left/right unit of the SlimLane 940, 940SC
  - 64 kg per left/right unit of the SlimLane 950, 950SC
  - 91 kg per intermediary unit of the SlimLane 940, 940SC
  - 93 kg per hybrid intermediary unit of the SlimLane 940, 940SC, 950 or 950SC
  - 95 kg per intermediary unit of the SlimLane 950, 950Sc
- Power supply: Single phase 120 VAC (5 A) to 240 VAC (3 A) - (+/-10%) - 50/60 Hz + Ground.
- The power supply must be protected by a 16 A circuit breaker + 30 mA differential circuit breaker.
- Power consumption (per lane):
  - At rest: 50 W
  - During operation: 110 W
  - Maximum: 300 W
- Motor (2 motors per lane): 24 VDC - output power 93 W.
- Min. opening/closing time of the panels (depending on the responsiveness of the access control system and the speed of the users):
  - 0.65 s (SlimLane 940 / SlimLane 940SC)
  - 0.85 s (SlimLane 950 / SlimLane 950SC)
  - 1.00 s (SlimLane 944/945 / SlimLane 944/945SC)
- Ambient temperature during use: 0 to +50°C.
- Relative ambient humidity for use: 95%, without condensation
- Sound level: 55 dB.
- Compliant with standards 
- Compliant with standards UL 2593 and ANSI 156.10 (certification in progress).

## 10. INSTALLATION PLANS AND DIMENSIONS

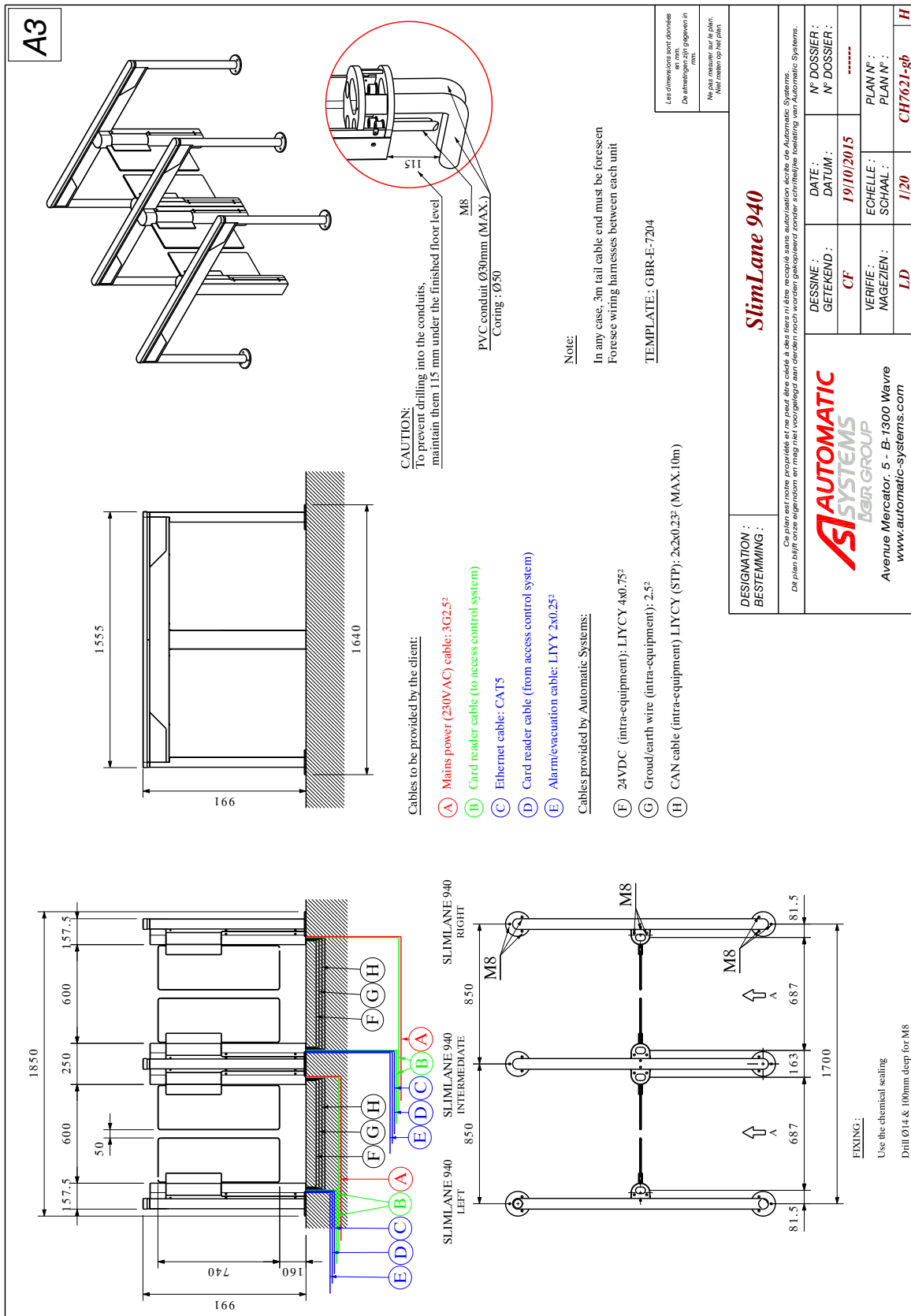


Fig. 74 - Installation plan - SlimLane 940

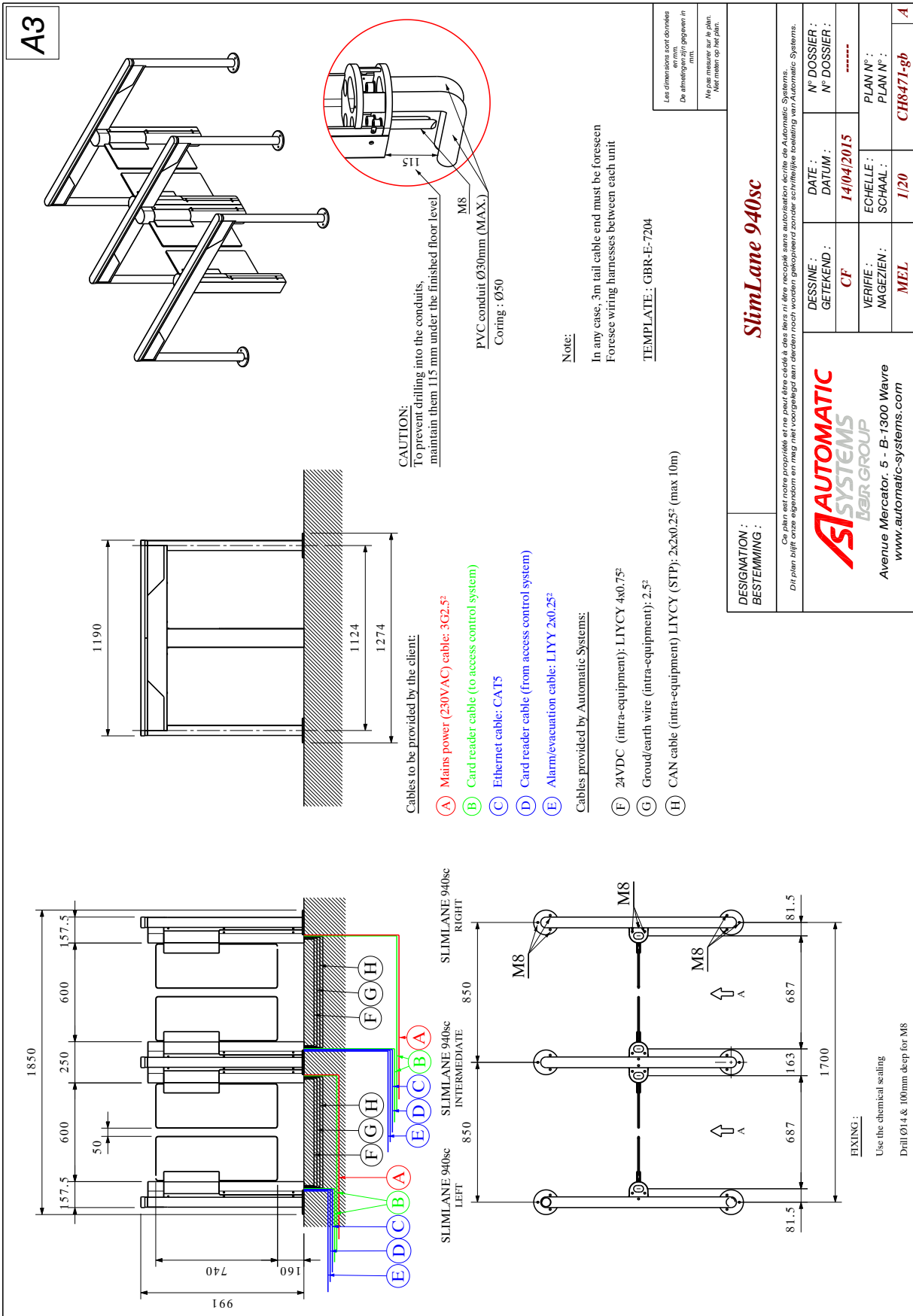


Fig. 75 - Installation plan - SlimLane 940 SC

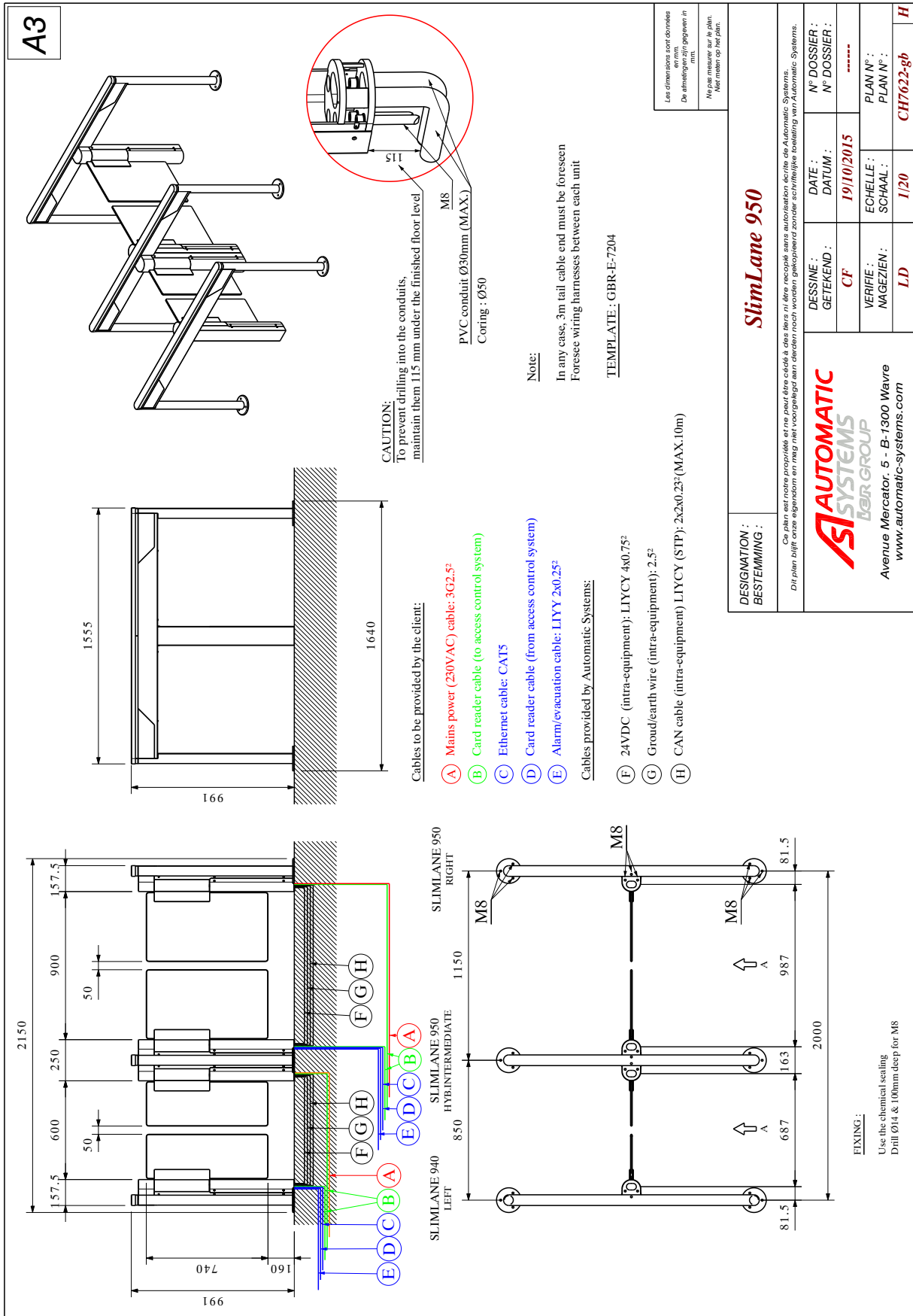


Fig. 76 - Installation plan - SlimLane 950

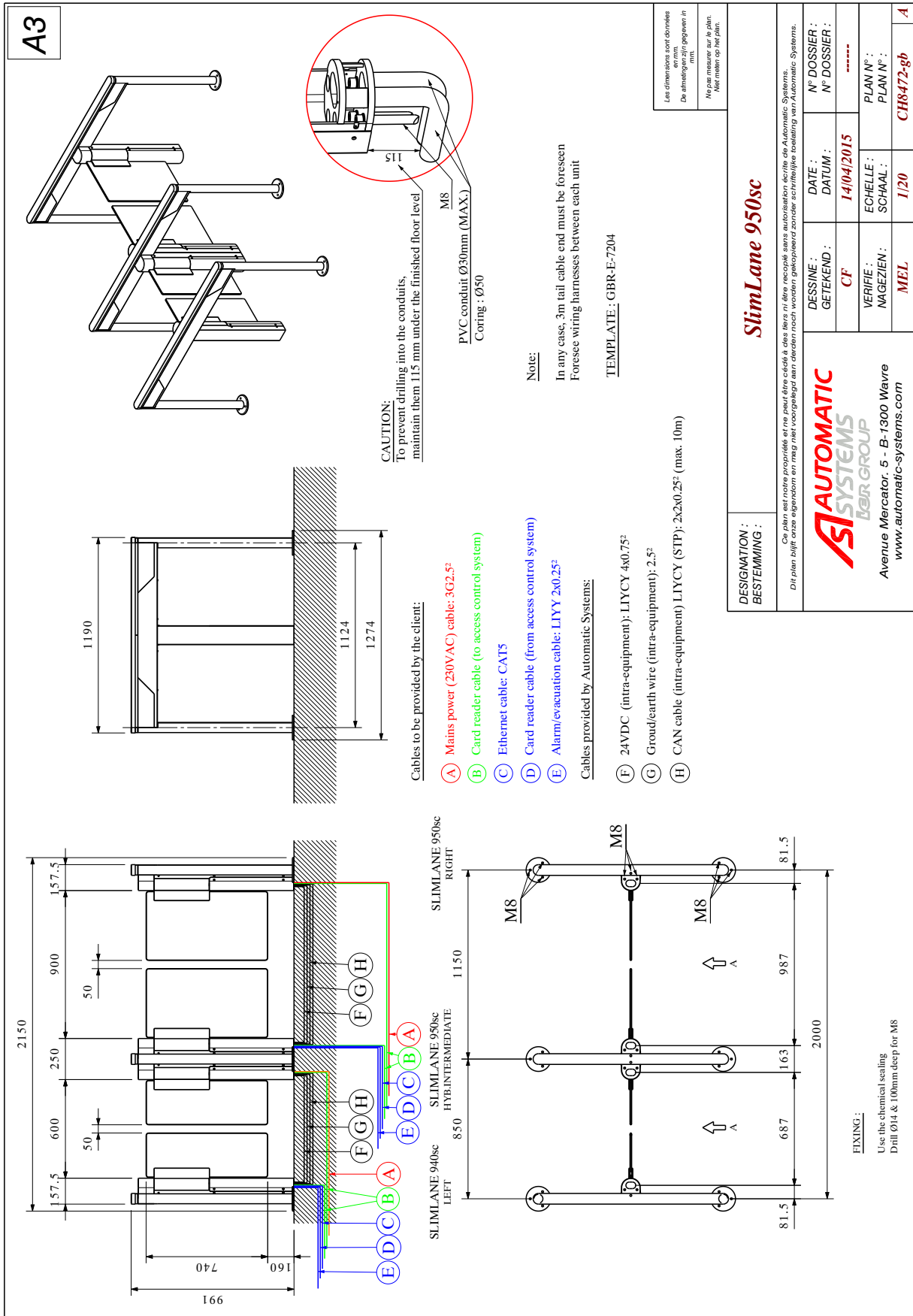


Fig. 77 - Installation plan - SlimLane 950 SC

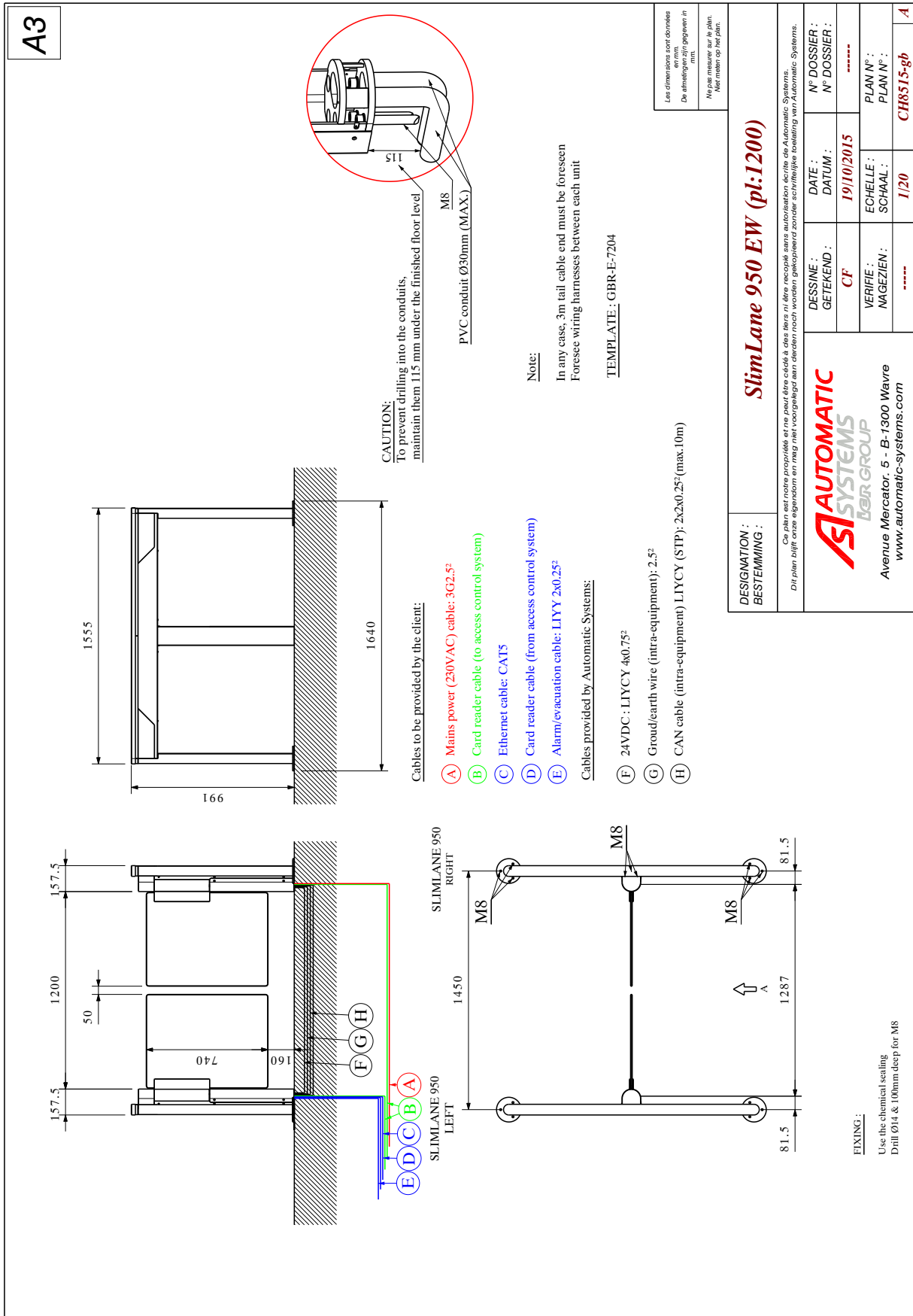
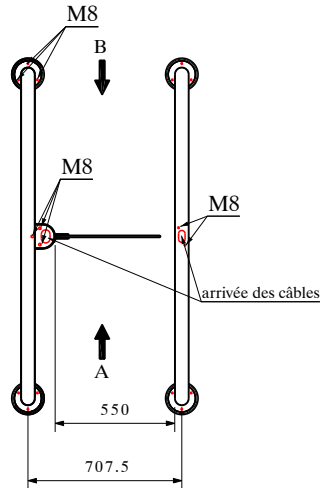
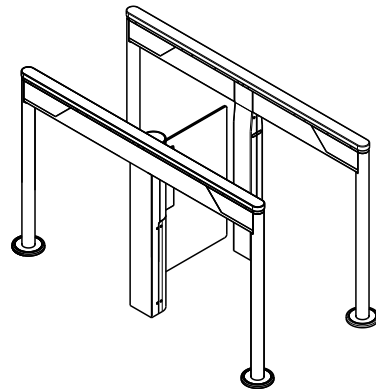
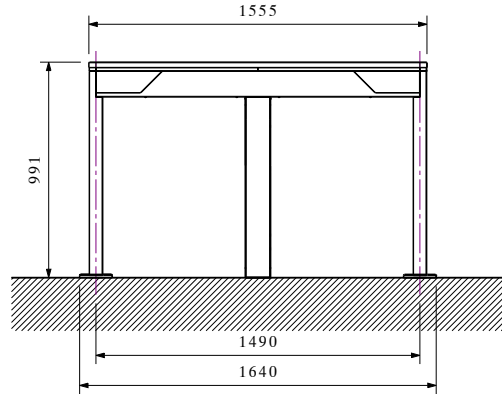
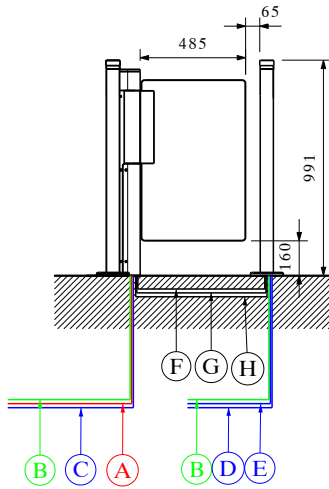


Fig. 78 - Installation plan - SlimLane 950 EW



A3



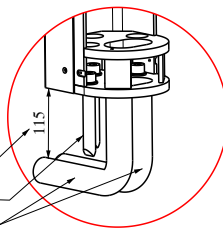
**Cables to be provided by the client:**

- (A) Mains power (230VAC) cable: 3G2.5<sup>2</sup>
- (B) Card reader cable (to access control system)
- (C) Ethernet cable: CAT5
- (D) Card reader cable (from access control system)
- (E) Alarm/evacuation cable: LIYY 2x0.25<sup>2</sup>

**Cables provided by Automatic Systems:**

- (F) 24VDC control cable (intra-equipment): LIYCY 2x0.75<sup>2</sup>
- (G) Groud/earth wire (intra-equipment): 2.5<sup>2</sup>
- (H) CAN cable (intra-equipment) LIYCY (STP): 2x2x0.25<sup>2</sup> (max.10m)

**CAUTION:**  
To prevent drilling into the conduits,  
maintain them 115 mm under the finished floor level



PVC conduit Ø30mm (MAX.)  
Coring : Ø50

**FIXING :**

Use the chemical sealing  
Drill Ø14 & 100mm deep for M8

**Note:**

In any case, 3m tail cable end must be foreseen  
Foresee wiring harnesses between each unit

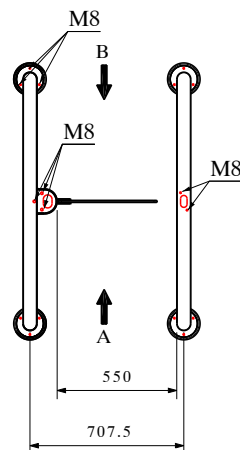
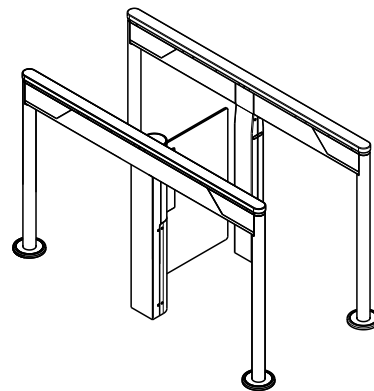
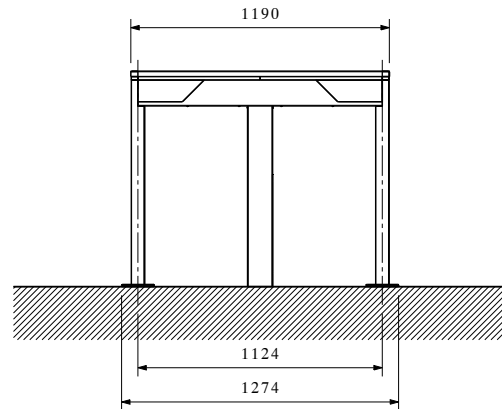
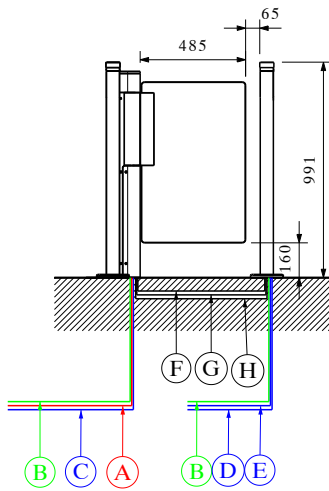
**TEMPLATE :** GBR-E-7204

Les dimensions sont données en mm.  
De afmetingen zijn gegeven in mm.  
Ne pas mesurer sur le plan.  
Niet meten op het plan.

DESIGNATION : BESTEMMING :	<b>SlimLane 944</b>		
<small>Ce plan est notre propriété et ne peut être cédé à des tiers ni être recopié sans autorisation écrite de Automatic Systems. Dit plan blijft onze eigendom en mag niet voorgelegd aan derden noch worden gekopieerd zonder schriftelijke toelating van Automatic Systems.</small>			
 Avenue Mercator, 5 - B-1300 Wavre www.automatic-systems.com	DESSINE : GETEKEND :	DATE : DATUM :	N° DOSSIER : N° DOSSIER :
	CF	22/07/2014	----
	VERIFIE : NAGEZIEN :	ECHELLE : SCHAAL :	PLAN N° : PLAN N° :
MEL	1/20	CH8381-gb	B

Fig. 79 - Installation plan - SlimLane 944

A3



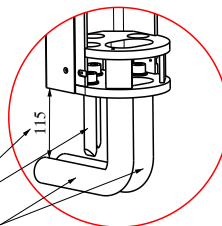
**Cables to be provided by the client:**

- (A) Mains power (230VAC) cable: 3G2.5<sup>2</sup>
- (B) Card reader cable (to access control system)
- (C) Ethernet cable: CAT5
- (D) Card reader cable (from access control system)
- (E) Alarm/evacuation cable: LIYY 2x0.25<sup>2</sup>

**Cables provided by Automatic Systems:**

- (F) 24VDC control cable (intra-equipment): LIYCY 2x0.75<sup>2</sup>
- (G) Ground/earth wire (intra-equipment): 2.5<sup>2</sup>
- (H) CAN cable (intra-equipment) LIYCY (STP): 2x2x0.25<sup>2</sup> (max.10m)

**CAUTION:**  
To prevent drilling into the conduits, maintain them 115 mm under the finished floor level



PVC conduit Ø30mm (MAX.)

**FIXING :**

- Use the chemical sealing
- Drill Ø14 & 100mm deep for M8

**Note:**

In any case, 3m tail cable end must be foreseen  
Foresee wiring harnesses between each unit

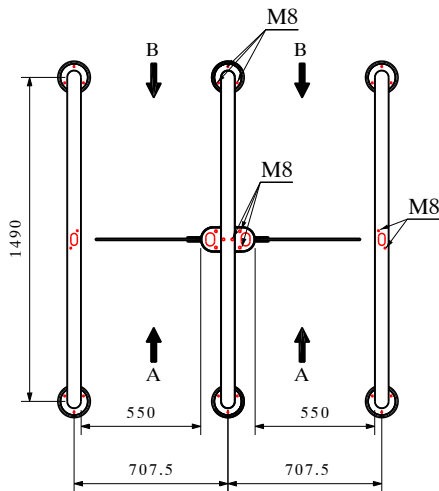
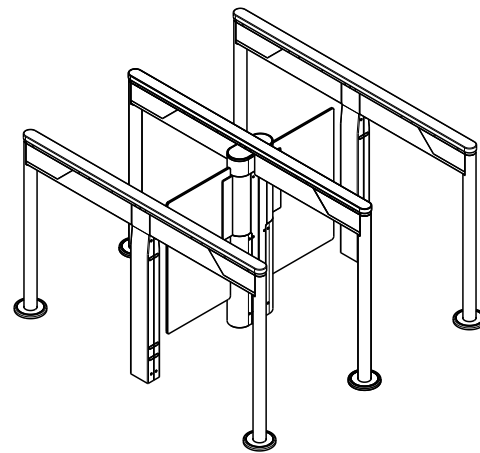
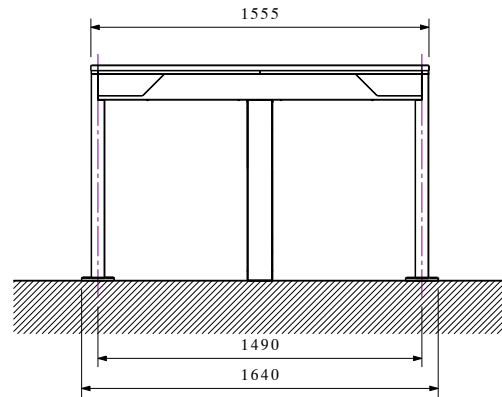
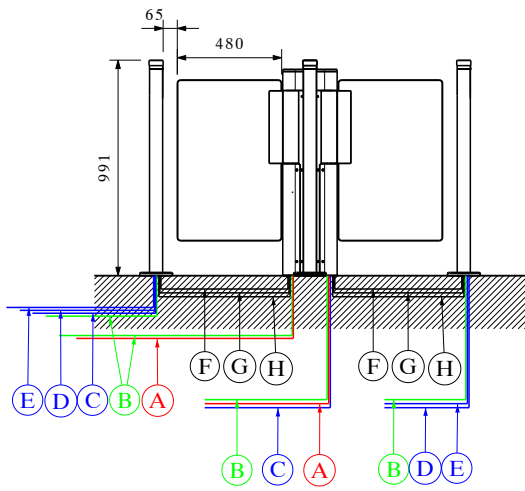
**TEMPLATE :** GBR-E-7204

Les dimensions sont données en mm.  
De afmetingen zijn gegeven in mm.  
Ne pas mesurer sur le plan.  
Niet meten op het plan.

DESIGNATION : BESTEMMING :	<b>SlimLane 944sc</b>		
<small>Ce plan est notre propriété et ne peut être cédé à des tiers ni être recopié sans autorisation écrite de Automatic Systems. Dit plan blijft onze eigendom en mag niet voorgelegd aan derden noch worden gekopieerd zonder schriftelijke toelating van Automatic Systems.</small>			
 <b>Automatic Systems</b> GBR GROUP Avenue Mercator, 5 - B-1300 Wavre www.automatic-systems.com	DESSINE : GETEKEND :	DATE : DATUM :	N° DOSSIER : N° DOSSIER :
	CF	13/04/2015	----
	VERIFIE : NAGEZIEN :	ECHELLE : SCHAAL :	PLAN N° : PLAN N° :
MEL	1/20	CH8475-gb	A

Fig. 80 - Installation plan - SlimLane 944 SC

A3



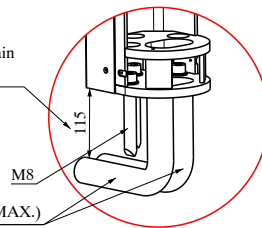
**Cables to be provided by the client:**

- (A) Mains power (230VAC) cable: 3G2.5<sup>2</sup>
- (B) Card reader cable (to access control system)
- (C) Ethernet cable: CAT5
- (D) Card reader cable (from access control system)
- (E) Alarm/evacuation cable: LIYY 2x0.25<sup>2</sup>

**Cables provided by Automatic Systems:**

- (F) 24VDC control cable (intra-equipment): LIYCY 2x0.75<sup>2</sup>
- (G) Ground/earth wire (intra-equipment): 2.5<sup>2</sup>
- (H) CAN cable (intra-equipment) LIYCY (STP): 2x2x0.25<sup>2</sup> (max.10m)

**CAUTION:**  
To prevent drilling into the conduits, maintain them 115 mm under the finished floor level



PVC conduit Ø30mm (MAX.)  
Coring : Ø50

**FIXING :**

Use the chemical sealing  
Drill Ø14 & 100mm deep for M8

**Note:**

In any case, 3m tail cable end must be foreseen  
Foresee wiring harnesses between each unit

TEMPLATE : GBR-E-7204

Les dimensions sont données en mm.  
De afmetingen zijn gegeven in mm.  
Ne pas mesurer sur le plan.  
Niet meten op het plan.

DESIGNATION :  
BESTEMMING :

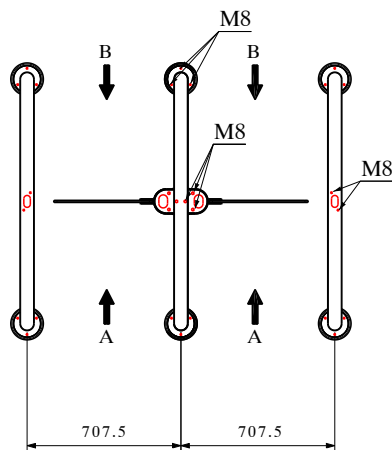
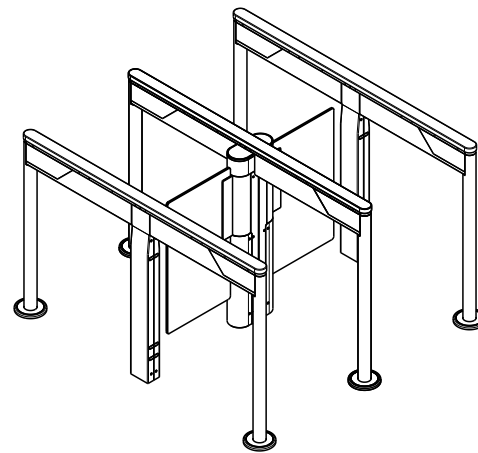
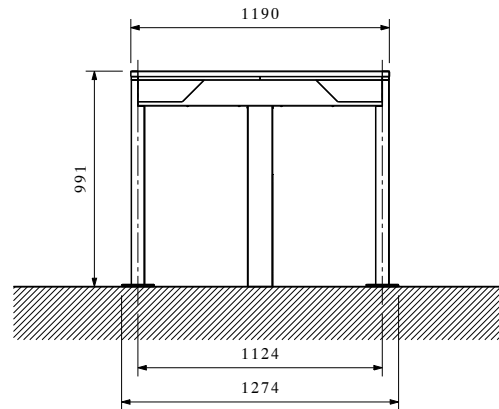
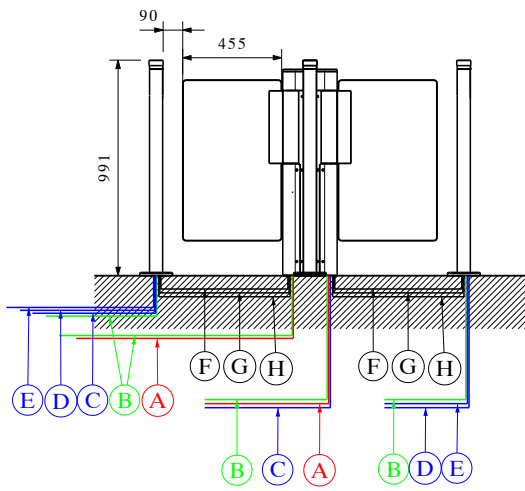
**SlimLane 945**

Ce plan est notre propriété et ne peut être cédé à des tiers ni être recopié sans autorisation écrite de Automatic Systems.  
Dit plan blijft onze eigendom en mag niet voorgelegd aan derden noch worden gekopieerd zonder schriftelijke toelating van Automatic Systems.

 <b>AUTOMATIC SYSTEMS</b> GBR GROUP Avenue Mercator, 5 - B-1300 Wavre www.automatic-systems.com	DESSINE : GETEKEND :	DATE : DATUM :	N° DOSSIER : N° DOSSIER :
	CF	17/07/2014	----
	VERIFIE : NAGEZIEN :	ECHELLE : SCHAAL :	PLAN N° : PLAN N° :
	MEL	1/20	CH7912

Fig. 81 - Installation plan - SlimLane 945

A3



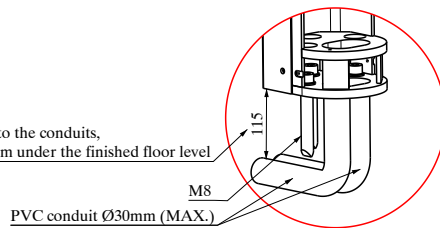
**Cables to be provided by the client:**

- Ⓐ Mains power (230VAC) cable: 3G2.5<sup>2</sup>
- Ⓑ Card reader cable (to access control system)
- Ⓒ Ethernet cable: CAT5
- Ⓓ Card reader cable (from access control system)
- Ⓔ Alarm/evacuation cable: LIYCY 2x0.25<sup>2</sup>

**Cables provided by Automatic Systems:**

- Ⓕ 24VDC control cable (intra-equipment): LIYCY 2x0.75<sup>2</sup>
- Ⓖ Ground/earth wire (intra-equipment): 2.5<sup>2</sup>
- Ⓗ CAN cable (intra-equipment) LIYCY (STP): 2x2x0.25<sup>2</sup> (max.10m)

**CAUTION:**  
To prevent drilling into the conduits,  
maintain them 115 mm under the finished floor level



**FIXING :**

- Use the chemical sealing
- Drill Ø14 & 100mm deep for M8

**Note:**

In any case, 3m tail cable end must be foreseen  
Foresee wiring harnesses between each unit

**TEMPLATE :** GBR-E-7204

Les dimensions sont données en mm.  
De afmetingen zijn gegeven in mm.  
Ne pas mesurer sur le plan.  
Niet meten op het plan.

DESIGNATION : BESTEMMING :	<b>SlimLane 945sc</b>		
<small>Ce plan est notre propriété et ne peut être cédé à des tiers ni être recopié sans autorisation écrite de Automatic Systems. Dit plan blijft onze eigendom en mag niet voorgelegd aan derden noch worden gekopieerd zonder schriftelijke toelating van Automatic Systems.</small>			
 <b>AUTOMATIC SYSTEMS</b> GBR GROUP Avenue Mercator, 5 - B-1300 Wavre www.automatic-systems.com	DESSINE : GETEKEND :	DATE : DATUM :	N° DOSSIER : N° DOSSIER :
	CF	04/07/2016	----
	VERIFIE : NAGEZIEN :	ECHELLE : SCHAAL :	PLAN N° : PLAN N° :
MEL	1/20	CH8474-gb	B

Fig. 82 - Installation plan - SlimLane 945 SC

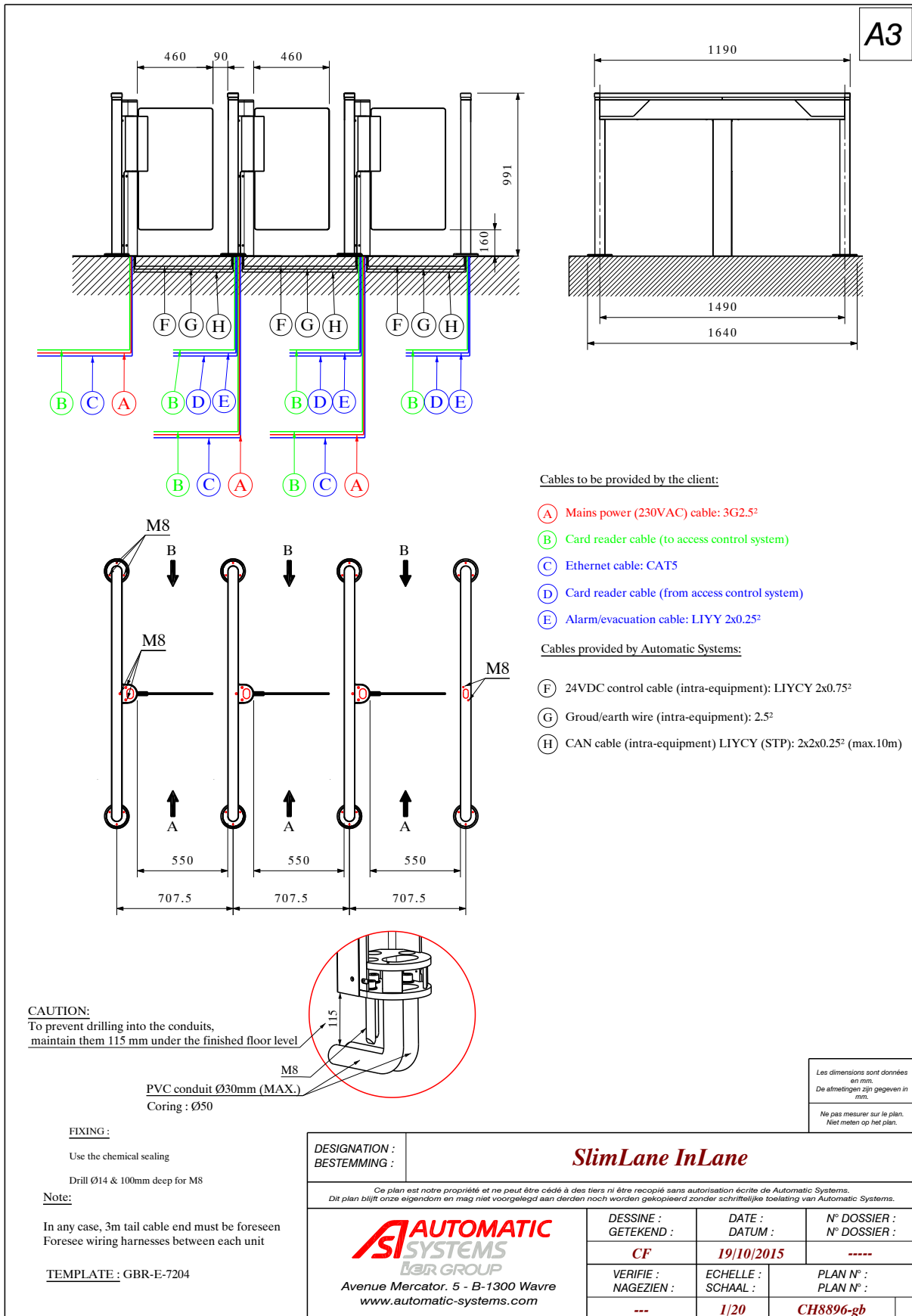
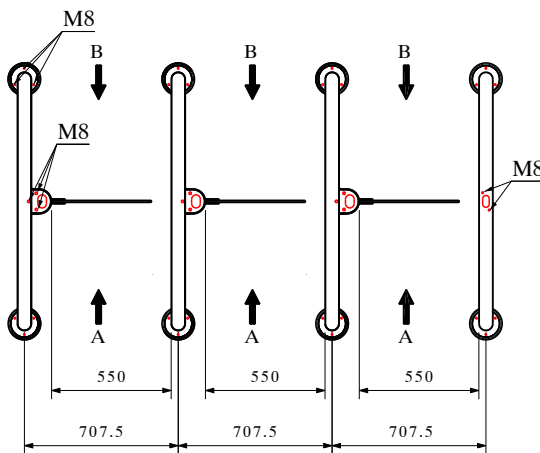
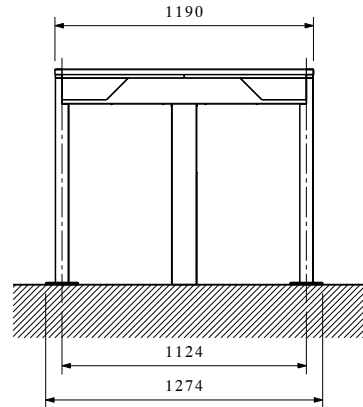
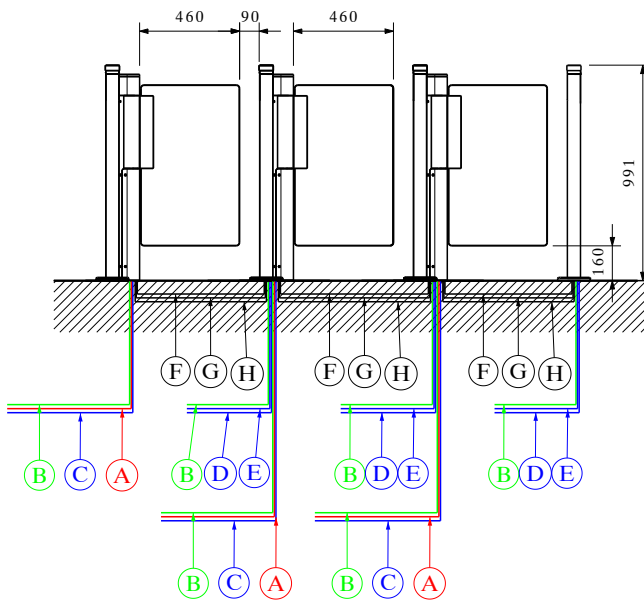


Fig. 83 - Installation plan - SlimLane InLane

A3



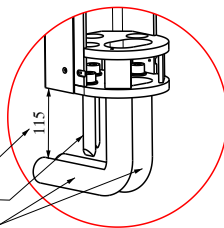
**Cables to be provided by the client:**

- (A) Mains power (230VAC) cable: 3G2.5<sup>2</sup>
- (B) Card reader cable (to access control system)
- (C) Ethernet cable: CAT5
- (D) Card reader cable (from access control system)
- (E) Alarm/evacuation cable: LIYY 2x0.25<sup>2</sup>

**Cables provided by Automatic Systems:**

- (F) 24VDC control cable (intra-equipment): LIYCY 2x0.75<sup>2</sup>
- (G) Groud/earth wire (intra-equipment): 2.5<sup>2</sup>
- (H) CAN cable (intra-equipment) LIYCY (STP): 2x2x0.25<sup>2</sup> (max.10m)

**CAUTION:**  
To prevent drilling into the conduits, maintain them 115 mm under the finished floor level



PVC conduit Ø30mm (MAX.)  
Coring : Ø50

**FIXING :**

- Use the chemical sealing
- Drill Ø14 & 100mm deep for M8

**Note:**

In any case, 3m tail cable end must be foreseen  
Foresee wiring harnesses between each unit

**TEMPLATE :** GBR-E-7204

Les dimensions sont données en mm.  
De afmetingen zijn gegeven in mm.  
Ne pas mesurer sur le plan.  
Niet meten op het plan.

DESIGNATION :  
BESTEMMING :

**SlimLane sc InLane**

Ce plan est notre propriété et ne peut être cédé à des tiers ni être recopié sans autorisation écrite de Automatic Systems.  
Dit plan blijft onze eigendom en mag niet voorgelegd aan derden noch worden gekopieerd zonder schriftelijke toelating van Automatic Systems.

 <b>AUTOMATIC SYSTEMS</b> GBR GROUP Avenue Mercator, 5 - B-1300 Wavre www.automatic-systems.com	DESSINE : GETEKEND : <b>CF</b>	DATE : DATUM : <b>19/10/2015</b>	N° DOSSIER : N° DOSSIER : <b>----</b>
	VERIFIE : NAGEZIEN : <b>---</b>	ECHELLE : SCHAAL : <b>1/20</b>	PLAN N° : PLAN N° : <b>CH8800-gb</b>

Fig. 84 - Installation plan - SlimLane SC InLane

## 10.1. MAIN DIMENSIONS OF A SERVICELANE

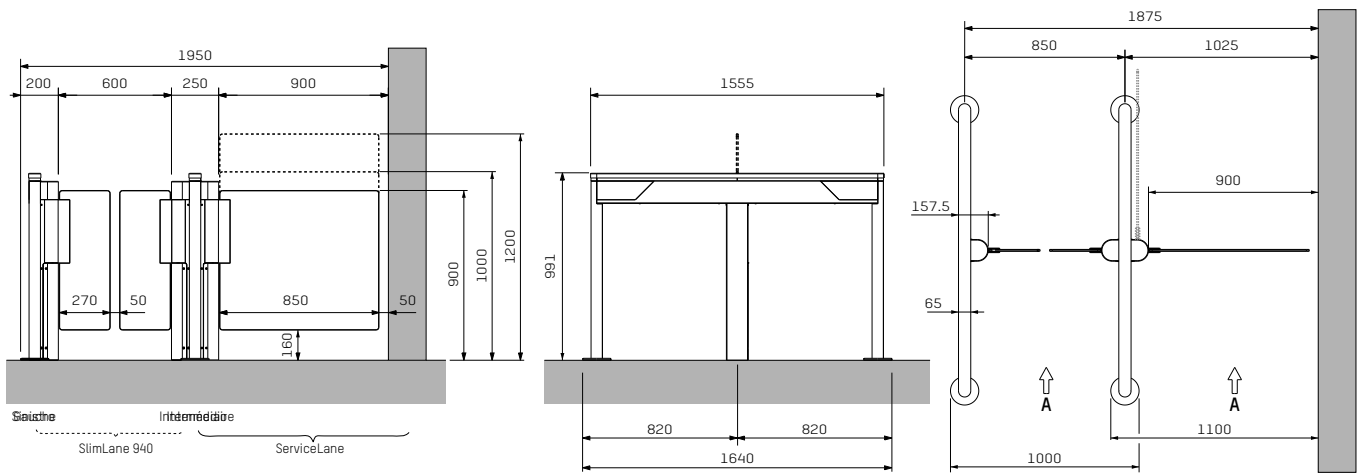


Fig. 85 - ServiceLane dimensions



## **11. WIRING DIAGRAMS**

See the **Electrical Technical File** supplied with the device



**12. ASSIGNMENT OF CIRCUIT BOARD COMPONENTS**

**12.1. DIRAS TRANSMITTER CIRCUIT BOARD AS1642**

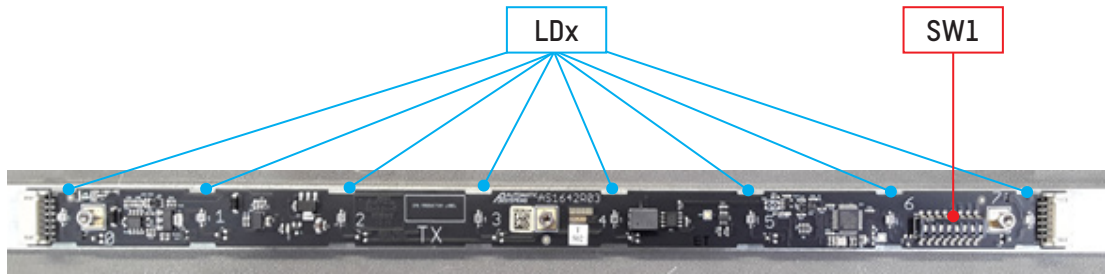


Fig. 86 - DIRAS Transmitter Circuit Board AS1642

REF.	DESCRIPTION
LDx	transmitter cell
SW1	address of the circuit board in the CAN network (see wiring diagram).

**12.2. DIRAS RECEIVER CIRCUIT BOARD AS1643**

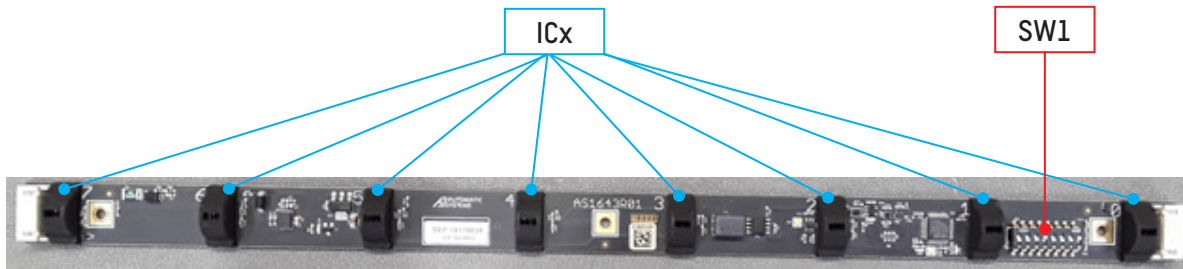


Fig. 87 - DIRAS Receiver Circuit Board AS1643

REF.	DESCRIPTION
LDx	transmitter cell
SW1	receiver cell (the Receiver side of the cell is used during the circuit board self-test)

## 12.3. MOTHERBOARD (CPU) AS1190

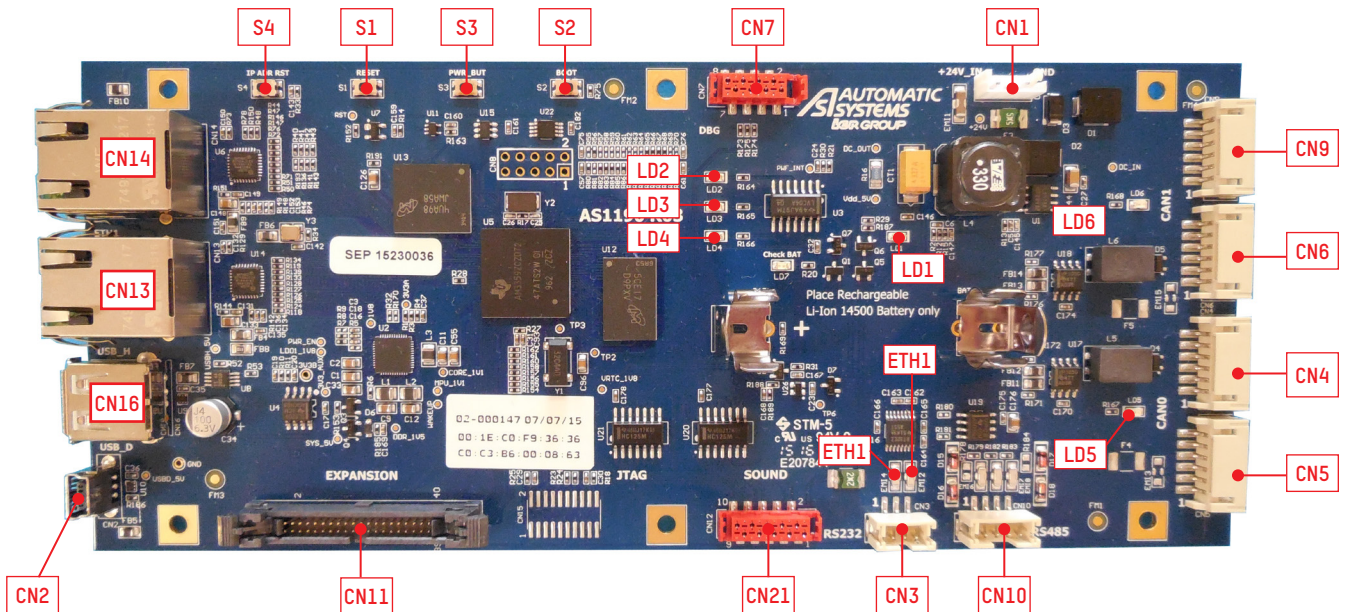


Fig. 88 - Motherboard (CPU) AS1190

REF.	DESCRIPTION	REF.	DESCRIPTION
CN1	24 VDC power supply	CN14	Ethernet100 Mbps RJ45 link
CN2	USB device	CN16	USB 2.0 host
CN3	RS232 link	LD3	User LED (Green)
CN4	CAN 0 Bus	LD4	CPU activity (heartbeat) indicator light (Red)
CN5	CAN 0 Bus	LD5	CAN 0 bus node status indicator light (Yellow)
CN6	CAN 1 Bus	LD6	CAN 1 bus node status indicator light (Yellow)
CN7	COM serial debug link	LD7	Incorrect battery position indicator light (Red)
CN9	CAN 1 Bus	S1	CPU Reset
CN10	RS485 link	S2	Program Restart
CN11	I/O extension BUS	S3	Shutdown
CN12	I2S interface with AS 1106 board (speech synthesis board)	S4	Recovery of factory IP address (192.168.0.200) if pressed at start-up or for 20 sec.
CN13	Ethernet100 Mbps RJ45 link		



**IF LED LD7, WHICH INDICATES THE INCORRECT POSITION OF THE BATTERY, IS LIT (RED), INVERT THE POSITION OF THE BATTERY IN ITS HOLDER.**

## 12.4. INPUTS/OUTPUTS BOARD AS1168

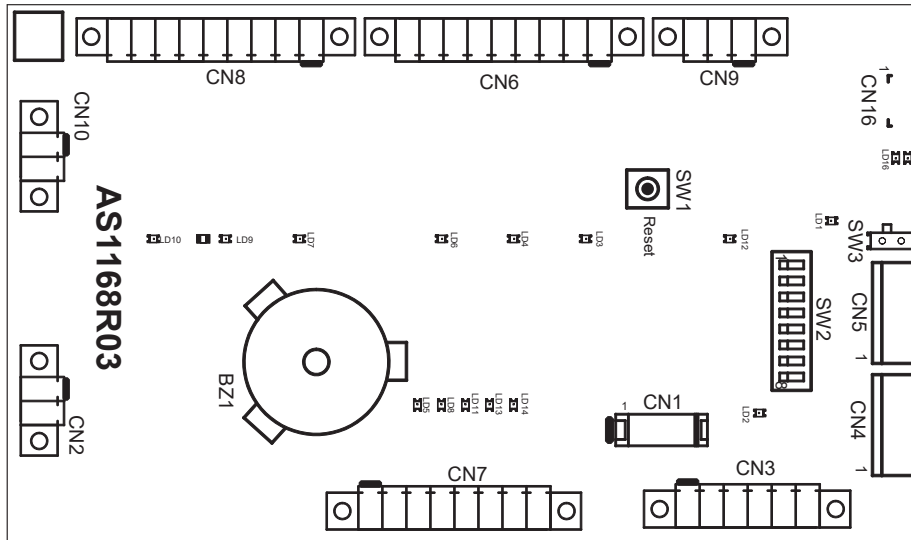


Fig. 89 - Inputs/Outputs Board AS1168

BZ1: buzzer with adjustable volume and tone via the Maintenance Interface

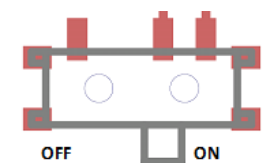
CN1	PROGRAMMING OF THE MICROCONTROLLER
1	+5 VDC
2	WATCHDOG DISABLE
3	0 VDC
4	COM TX
5	COM.RX
6	PSEN
7	0 VDC
8	0 VDC
CN2	24 VDC POWER SUPPLY
1	+24 VDC
2	0 VDC
CN3	CAN BUS SITE
1	+24 VDC
2	0 VDC
3	CAN +
4	CAN -
5	0 VDC
6	+24 VDC
CN4	CAN BUS LOCAL
1	+24 VDC
2	0 VDC
3	CAN +
4	CAN -
5	0 VDC
6	+24 VDC

CN5	CAN BUS LOCAL
1	+24 VDC
2	0 VDC
3	CAN +
4	CAN -
5	0 VDC
6	+24 VDC
CN6	DRY CONTACT RELAY OUTPUTS
1	NO - PASSAGE DIRECTION A
2	COM - PASSAGE DIRECTION A
3	NC - PASSAGE DIRECTION A
4	NO - PASSAGE DIRECTION B
5	COM - PASSAGE DIRECTION
6	NC - PASSAGE DIRECTION B
7	NO - DOOR CLOSED
8	COM - DOOR CLOSED
9	NC - DOOR CLOSED
CN7	ALL OR NOTHING INPUTS 24 VDC
1	+24 VDC
2	EVACUATION
3	+24 VDC
4	AUTHORIZATION READER A
5	AUTHORIZATION READER B
6	DENIED READER A
7	DENIED READER B
8	0 VDC

CN8	DRY CONTACT RELAY OUTPUTS
1	NO - TECHNICAL FAULT
2	(6) COM - TECHNICAL FAULT
3	NC - TECHNICAL FAULT
4	NO - LOCKING READER A
5	COM - LOCKING READER A
6	(7) NC - LOCKING READER A
7	NO - LOCKING READER B
8	COM - LOCKING READER B
9	NC - LOCKING READER B
CN9	Dry contact relay outputs
1	NO - VIOLATION
2	(8) COM - VIOLATION
3	NC - VIOLATION
CN10	24 VDC POWER SUPPLY
1	+24 VDC
2	0 VDC
CN16	LIGHT OUTPUTS
1	Green light
2	Red light
3	0 VDC

- (1) Signal sent on a Normally Open or Closed contact when the user crossing the lane in direction A or B respectively has passed the obstacles.
- (2) Signal sent on a Normally Open or Closed contact when both obstacles in the lane (or the only obstacle in SlimLane 944) are closed.
- (3) Evacuation mode control (= opening of the obstacles allowing free passage of users in both directions).
- (4) Obstacle opening command in direction A or B respectively, from the access control system (not supplied as standard).
- (5) Authorisation for passage in direction A or B respectively not granted by the access control system (not supplied as standard). This information is used to illuminate the corresponding status lights.
- (6) Signal sent on a Normally Open or Closed contact when the lane is faulty.
- (7) Access control system inhibition signal (not supplied as standard) sent on a Normally Open or Closed contact and which prevents requests for passage in the relevant direction from being processed in the following cases:
  - A passage authorisation in this direction is in progress and passage storage is deactivated,
  - The operating mode for this direction of passage is Free or Prohibited.
 The corridor is in Closed Blocked mode.
- (8) Signal sent to a Normally Open or Closed contact when a fraudulent attempt to pass through is detected.

LD1	<b>Reset watchdog timer indicator:</b> flashes when the application is functional
LD 2	<b>Node status indicator on the CAN bus:</b> <ul style="list-style-type: none"> <li>• Lit constantly ⇒ Node stopped by the master</li> <li>• Flashing with 200 ms period ⇒ Node in pre-operational mode</li> <li>• Flashing with 50 ms period ⇒ Node in operational mode</li> </ul>
LD 3	<b>Direction A output indicator:</b> lit when a voltage is present on the corresponding relay.
LD 4	<b>Direction B output indicator:</b> lit when a voltage is present on the corresponding relay.
LD 5	<b>Evacuation input indicator:</b> lit when a 24 VDC voltage is present on the input.
LD 6	<b>Door closed output indicator:</b> lit when voltage is present on the corresponding relay.
LD 7	<b>Technical fault output indicator:</b> lit when a voltage is present on the corresponding relay.
LD 8	<b>Reader A authorisation input indicator:</b> lit when a 24 VDC voltage is present on the input.
LD 9	<b>Reader A lock output indicator:</b> lit when a voltage is present on the corresponding relay.
LD 10	<b>Reader B lock output indicator:</b> lit when a voltage is present on the corresponding relay.
LD 11	<b>Reader B authorization input indicator:</b> lit when a 24 VDC voltage is present on the input.
LD 12	<b>Violation output indicator:</b> lit when a voltage is present on the corresponding relay.
LD 13	<b>Reader A refusal input indicator</b>
LD 14	<b>Reader B refusal input indicator</b>
LD16	<b>Green light output indicator</b>
LD18:	<b>Red light output indicator</b>
SW1	<b>Microcontroller reset</b>
SW2	<b>Address of the circuit board on the CAN bus + baud rate</b>
1	LSb address (bit 0)
2	Bit 1 address
3	Bit 2 address
4	Bit 3 address
5	Bit 4 address
6	Bit 5 address
7	MSb address (bit 6)
8	Baud rate (0 = 500kb – 1 = 1Mb)
SW3	<b>End of CAN bus:</b> <ul style="list-style-type: none"> <li>• OFF ⇒ End of CAN bus not connected</li> <li>• ON ⇒ End of CAN bus connected</li> </ul>



## 12.5. AS1185 MOTORIZATION CIRCUIT BOARD

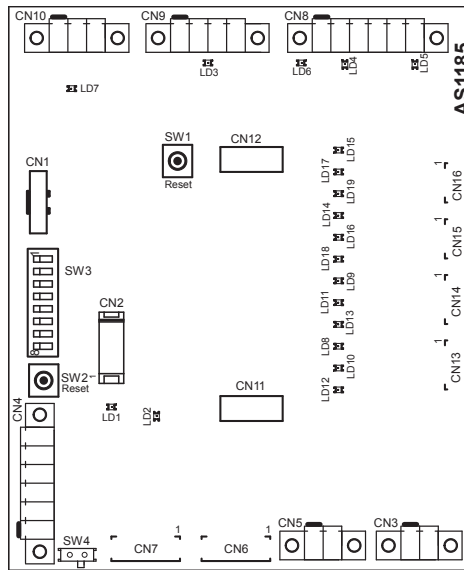


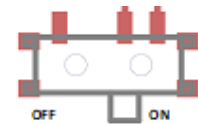
Fig. 90 - AS1185 motorization circuit board

CN1	PROGRAMMING OF THE MICROCONTROLLER
1	+5 VDC
2	-
3	0 VDC
4	COM TX
5	COM.RX
6	-
7	0 VDC
8	0 VDC
CN2	COM SERIAL
CN3	24 VDC POWER SUPPLY
1	+24 VDC
2	0 VDC
CN4	CAN BUS SITE
1	+24 VDC
2	0 VDC
3	CAN +
4	CAN -
5	0 VDC
6	+24 VDC
CN5	24 VDC POWER SUPPLY
1	+24 VDC
2	0 VDC
CN6	DRY CONTACT RELAY OUTPUTS
1	+24 VDC
2	0 VDC
3	CAN +
4	CAN -
5	0 VDC
6	+24 VDC
CN7	CAN BUS LOCAL
1	+24 VDC
2	0 VDC

3	CAN +
4	CAN -
5	0 VDC
6	+24 VDC
CN8	MOTOR ENCODER INPUT
1	+5 VDC
2	+5 VDC
3	CHANNEL A
4	CHANNEL B
5	0 VDC
6	0 VDC
CN9	OUTPUT 24 VDC ELECTRO1 (= LOCK OF THE OPENING OPTION WITH BATTERY)
1	+24 VDC
2	0 VDC
3	+24 VDC
4	0 VDC
CN10	DRY CONTACT EGRESS INPUT
1	+24 VDC
2	Contact input (NC)
3	0 VDC
CN11	PIGGYBACK LOWER MOTOR POWER
1	MOT_H_D
2	MOT_B_D
3	MOT_H_G
4	MOT_B_G
5	SPI_MOSI
6	SPI_SCK
7	SPI_MISO
8	0 VDC
9	0 VDC
10	0 VDC

CN12	PIGGYBACK HIGHER THAN MOTOR POWER
1	Battery voltage
2	Battery voltage
3	Battery voltage
4	Battery charger control
5	Battery voltage relay order
6	+5 VDC
7	+5 VDC
8	0 VDC
9	0 VDC
10	0 VDC
CN13	STATUS LIGHT 1
1	BLUE OUTPUT
2	GREEN OUTPUT
3	RED OUTPUT
4	0 VDC
CN14	STATUS LIGHT 2
1	BLUE OUTPUT
2	GREEN OUTPUT
3	RED OUTPUT
4	0 VDC
CN15	ORIENTATION LIGHT
1	GREEN OUTPUT
2	RED OUTPUT
3	0 VDC
CN16	ORIENTATION LIGHT
1	GREEN OUTPUT
2	RED OUTPUT
3	0 VDC

LD1	<b>CAN bus node status indicator light.</b> <ul style="list-style-type: none"> <li>• Lit constantly ⇒ Node stopped by the master</li> <li>• Flashing with 200 ms period ⇒ Node in pre-operational mode</li> <li>• Flashing with 50 ms period ⇒ Node in operational mode</li> </ul>
LD2	<b>Green reset watchdog timer light:</b> flashes when the application is running.
LD3	<b>Green electro 1 control output light:</b> lit when voltage is present.
LD 4	<b>Green channel A input light:</b> lit when a 24 VDC voltage is present on the input. <b>Note:</b> This LED flashes when the obstacle is moving.
LD 5	<b>Green encoder input LED channel B:</b> lit when a 24 VDC voltage is present on the input. <b>Note:</b> This LED flashes when the obstacle is moving.
LD 6	<b>Green brake control output light:</b> lit when voltage is present.
LD 7	<b>Green EGRESS contact input indicator light:</b> lit when the contact is closed.
LD 8	Green light 1 output indicator (blue): lit when voltage is present.
LD 9	<b>Green light 2 output indicator (blue):</b> lit when voltage is present.
LD 10	<b>Green light 1 output indicator (green):</b> lit when voltage is present.
LD 11	<b>Green light 2 output indicator (green):</b> lit when voltage is present.
LD 12	<b>Green light 1 output indicator (red):</b> lit when voltage is present.
LD 13	<b>Green light 2 output indicator (red):</b> lit when voltage is present.
LD 14	Green light 3 output indicator (blue): lit when voltage is present.
LD15	Green light 4 output indicator (blue): lit when voltage is present.
LD16	<b>Green light 3 output indicator (green):</b> lit when voltage is present.
LD17	<b>Green light 4 output indicator (green):</b> lit when voltage is present.
LD18:	<b>Green light 3 output indicator (red):</b> lit when voltage is present.
LD19	<b>Green light 4 output indicator (red):</b> lit when voltage is present.
Light 1+2 = status light; light 3+4 = orientation light	
SW1	<b>Settings reset</b>
SW2	<b>Microcontroller reset</b>
SW3	<b>Address of the circuit board on the CAN bus + baud rate</b>
1	LSb address (bit 0)
2	Bit 1 address
3	Bit 2 address
4	Bit 3 address
5	Bit 4 address
6	Bit 5 address
7	MSb address (bit 6)
8	Baud rate (0 = 500kb – 1 = 1Mb)
SW4	<b>End of CAN bus:</b> <ul style="list-style-type: none"> <li>• OFF ⇒ End of CAN bus not connected</li> <li>• ON ⇒ End of CAN bus connected</li> </ul>



## 13. EC DECLARATION OF CONFORMITY



### EC declaration of conformity



We, undersigned,

**AUTOMATIC SYSTEMS s.a.**  
**Avenue Mercator, 5**  
**1300 Wavre**  
**BELGIQUE**

Herewith declare that the following machine

**Security entrance lane**

**SlimLane 940, SlimLane 940SC**  
**SlimLane 944, SlimLane 944SC**  
**SlimLane 945 Twin, SlimLane 945 Twin SC**  
**SlimLane 950, SlimLane 950SC**  
**SlimLane 950EW, SlimLane ServiceLane**

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

- Machinery Directive 2006/42/CE.
- Low-voltage Directive 2014/35/UE.
- Electromagnetic compatibility Directive 2014/30/UE.
- 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: 2020.08.31  
 Name: Nicolas Péqueux  
 Function: R&D Director

Fig. 91 - EC Declaration of Conformity



**NOTES**







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