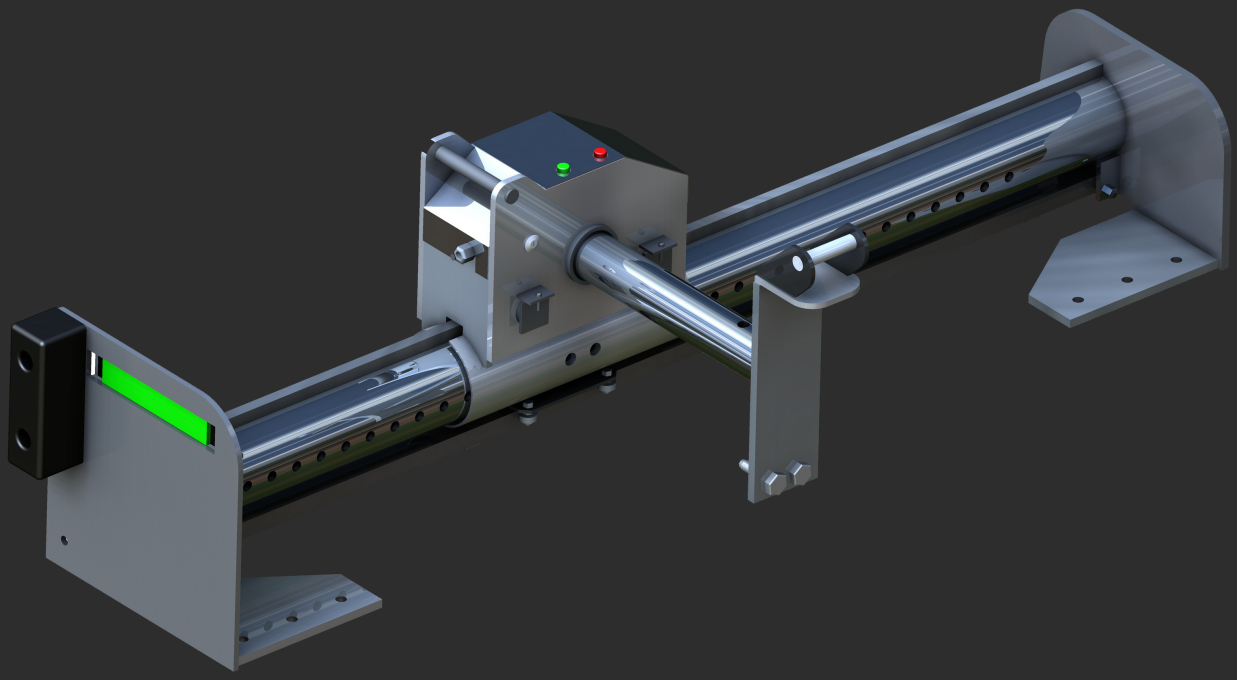
Manual restraint system

EASYBLOCK

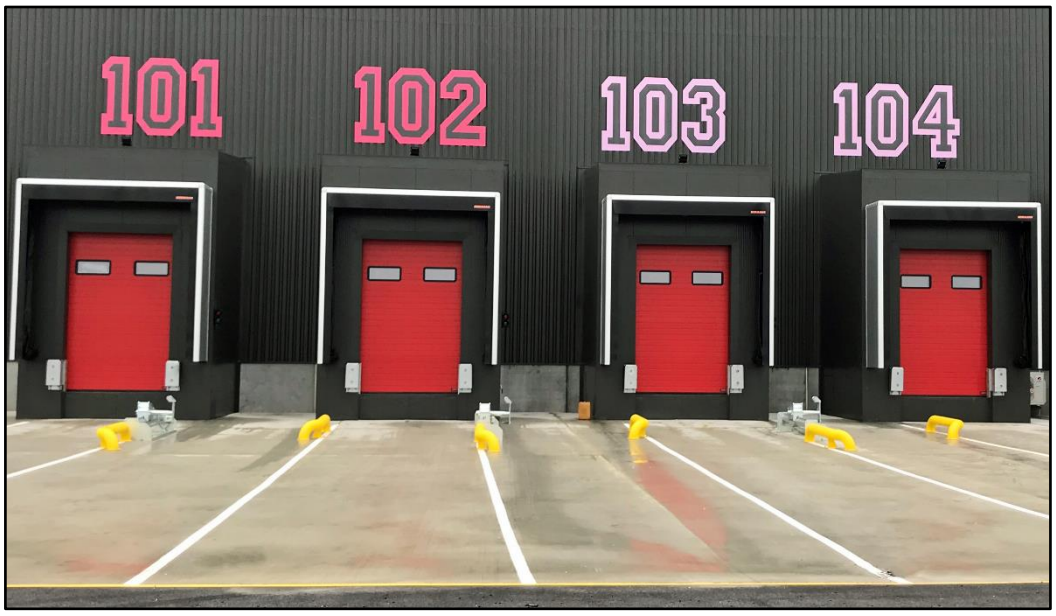
Technical manual



ASA systems

SUMMARY

Part 1
Installation manual



The Easyblock (1 unit) is packed in a metallic structure (transport bracket) which measures 2,03 x 0,80 x 0,90 m H - Total weight : 180 kgs.

- 1 pre-assembled Easyblock (mounted mechanical part)
- 1 control unit including a maintenance key, spare fuses, cables with connectors for exterior traffic lights (in the case of optional additional traffic light), door sensor, dock sensor

In the case of several Easyblocks transported together, the metallic structure contains 2 Easyblocks.

This structure measures 2,05 x 1,05 x 0,70 m H - Total weight : 400 kgs.

UNLOADING

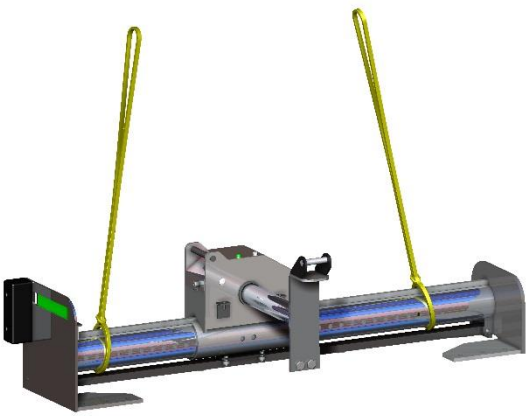
The Easyblock's unloading must be done with a forklift.

HANDLING WITH TRANSPORT BRACKET

Unloading must be done one bracket at a time. Do not unload several brackets at the same time. Load the bracket on the forklift by taking it under the tubular structure.

STRAPPING AND LIFTING THE MACHINE

Once unloaded, remove each Easyblock from the bracket by using the lifting straps (1T each, L = 1000 mm minimum) placed on the tubular tube, on each side of the carriage (see picture).
Be careful to not wrap the strap around the guidance rail.
Balance out the weight by centering the carriage and the wheel-stop.
To remove the machine from its bracket, remove the fixing bolts that are holding the machine and the bracket together.



Depending on the docks environment and their situation, several different ways exist to position the Easyblock.

There are also different versions of the system:

- → **H50 :** the standard version of the Easyblock which can be adapted to many situations L = 2000 mm – Installation on the ground or on concrete base up to 50 mm high.
- → **H50XL :** Easyblock for long vehicles L = 4000 mm – Installation on the ground or on concrete base up to 50 mm high.
- → **H400 :** Easyblock which adapts generally on concrete bases or concrete wheel-guides between 200 mm and 350 mm high. L = 2000 mm
- → **H400XL :** Identical to H400 version but longer. L = 4000 mm (for long vehicles)

A standard reservation plan is represented below. However, on simple request, we can provide a plan according to your needs.

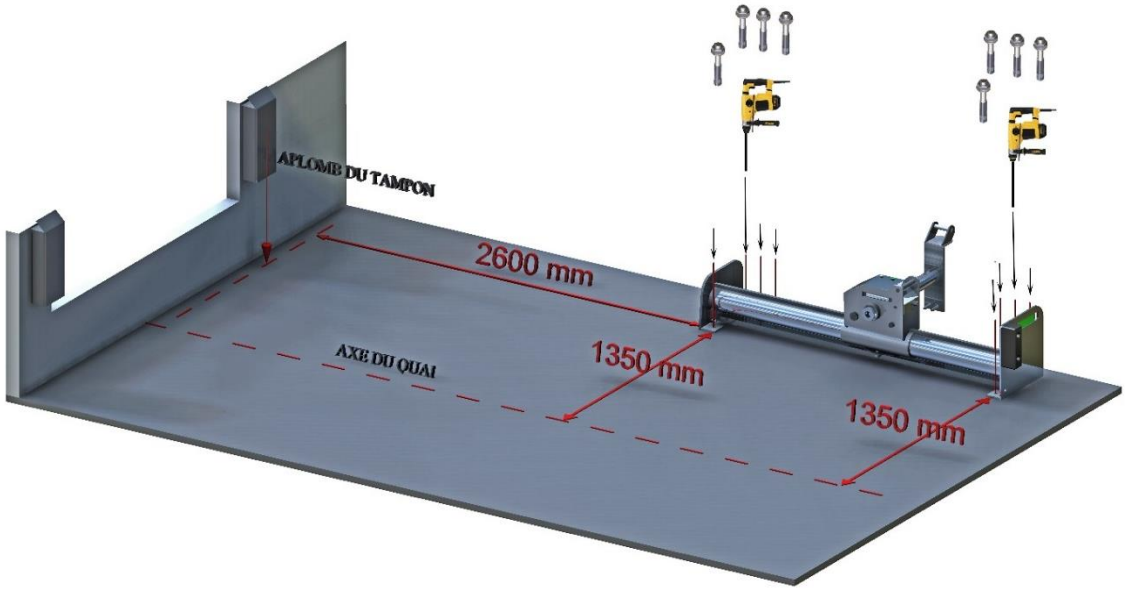
In the case of installing on concrete wheel-guides, an additional information and training is necessary.
Ask us for more information if needed, our technical department is at your service.

INSTALLATION

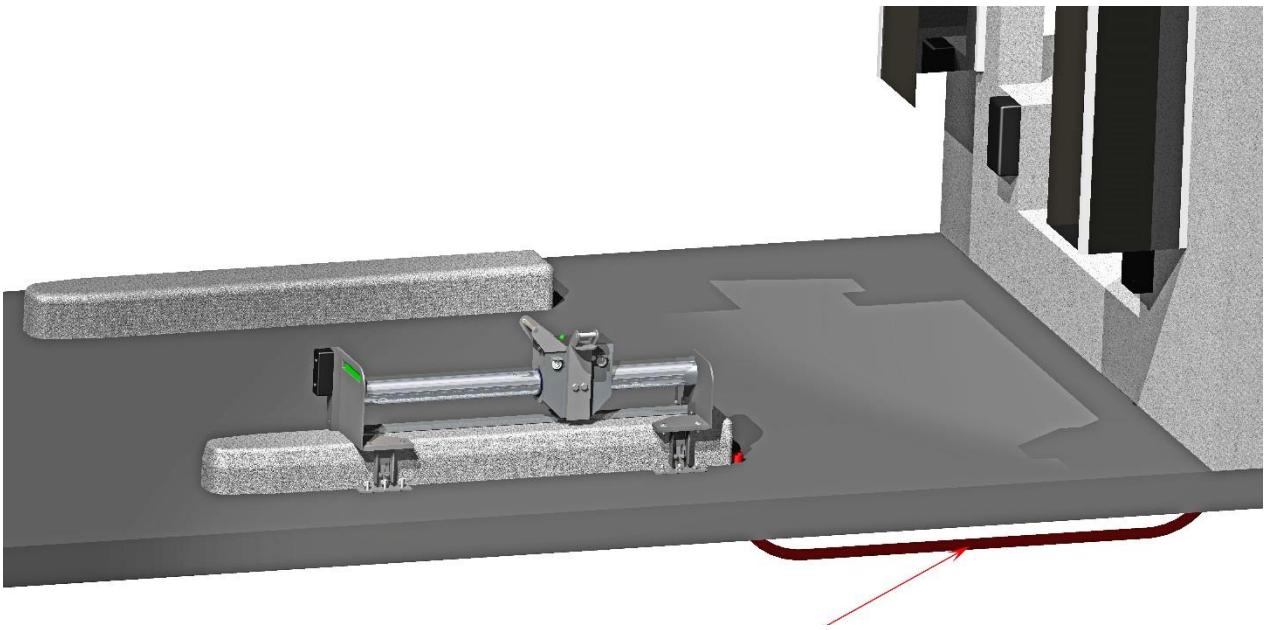
(General case)

Place the Easyblock on the ground while considering the squareness in regard to the dock and the dimensions indicated on the installation plan H500/H400.
The Easyblock should be positioned at 2600 mm from the front of the buffer and 1350 mm from the dock axis.
For the XL versions (4000 mm), position the Easyblock at 800 mm from the front of the buffer and 1350 mm from the dock axis.
Anchor the Easyblock to the ground by using 8 anchor studs M16 – L 130.

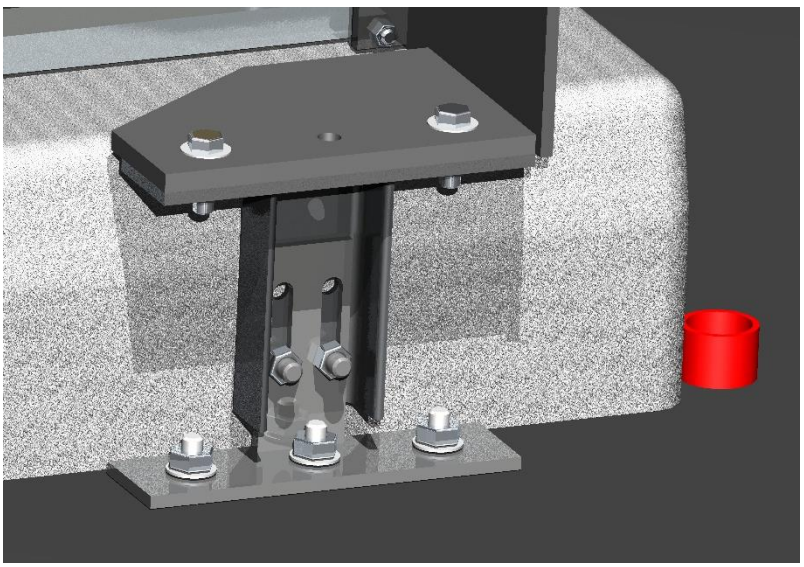
EASYBLOCK with integrated wheel-guides :
Attach the right wheel-guide to the ground with 3 M16x50 bolts and anchor them to the ground with 3 anchor studs M16/130.
Attach the left wheel-guide with 6 anchor studs M16/130.
Free passage between the wheel-guides should be between 1600 and 1650 mm.



- Mounting on concrete ground.
- Mounting on the side of the concrete wheel-guide.



The wheel-guides height with standard fixations may vary from 250 mm to 350 mm.
For lower or superior height, please contact us.
The 2 higher fixations are not represented here.



- Run the connection cable towards the control unit through the sheath.
- Install the control unit inside the building.
- Set up the door and dock sensors (infrared sensors) and connect them thanks to the marked connectors.

Note: the door sensor can be installed at 60 cm from the ground which will allow partial opening of the door to ventilate the the premises (ED 6059).

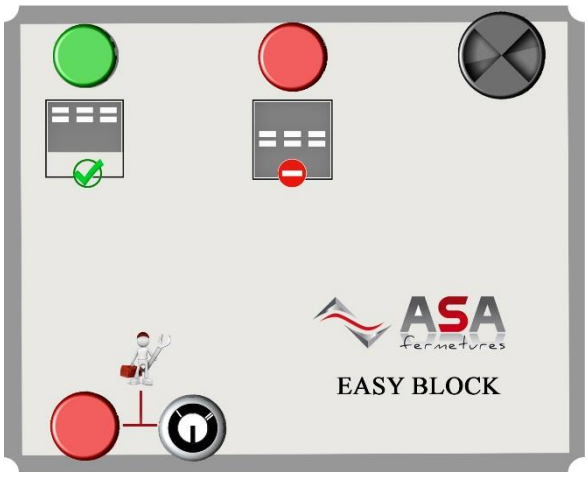
The dock sensor must detect the dock lips position when it is withdrawn (folded) and can be installed either with a bracket or directly on the bandeau behind the dock lip (adjust the sensors potency if necessary, potentiometer situated next to the sensors led light) *

- Connect the cables that come from the exterior distribution box to the connecters situated under the control unit (be careful about the colours gaps, to not force to insert them)

- Connect the door blockage on 20-21 of the control unit (towards the door control unit). The dock blockage must be realized by the end position contact above the door ** (the 20-21 is a dry contact).

- Check before connecting that the wheel-stop is completely withdrawn.

- Connect the power supply to the plug. The interior led light must be red, the exterior light must be green.



- Do necessary tests (see signalisation) - Driver and operator instructions page 22.

* The beepers potency can be adjusted by turning it left or right.
** The door's security can be made by series on 20-21. However, there is a risk to raise the dock even if the door is closed, if the door-dock link has not been done (this security link is not prone to the restraint system).

Note : The blocking arm (wheel-stop) is blocked by an electromagnet if there is no power supply (not supplied) or if the door is open, or the dock is not withdrawn.
In case of power shortage, the electromagnet's pin can be manually removed, by removing the cover.
The maintenance position equally removed the electromagnet if the control unit is power supplied.

IDENTIFICATION CODES ACCORDING TO STANDARD EN 61082

CODE	ITEM
ARx	Control unit
BOTx	Distribution box (on Easyblock)
B	Inductive sensors
C	Condenser
E	Special items
EL	Lighting
F	Protective items (fuses)
G	Power supply
H	Signage items (ex. beeper ...)
K	Contactors and relays
KT	Temporized relays
L	Coils
M	Motor
P	Screen and indicators
Q	Circuit breaker and switch
R	Resistance and potentiometer
S	Position sensors
T	Transformer
U	Reverses and frequency converter
V	Semiconductor
X	Electrical terminal, connector and power socket
Y	Electrovalves, brake

GENERAL INFORMATION

POWER SUPPLY: 220 V MONOPHASED
CONTROL VOLTAGE: 24 V VDC
FUSE INTENSITY: 4A
CONTROL UNIT LEVEL OF PROTECTION: IP 65
STANDARD: EN 60434-1

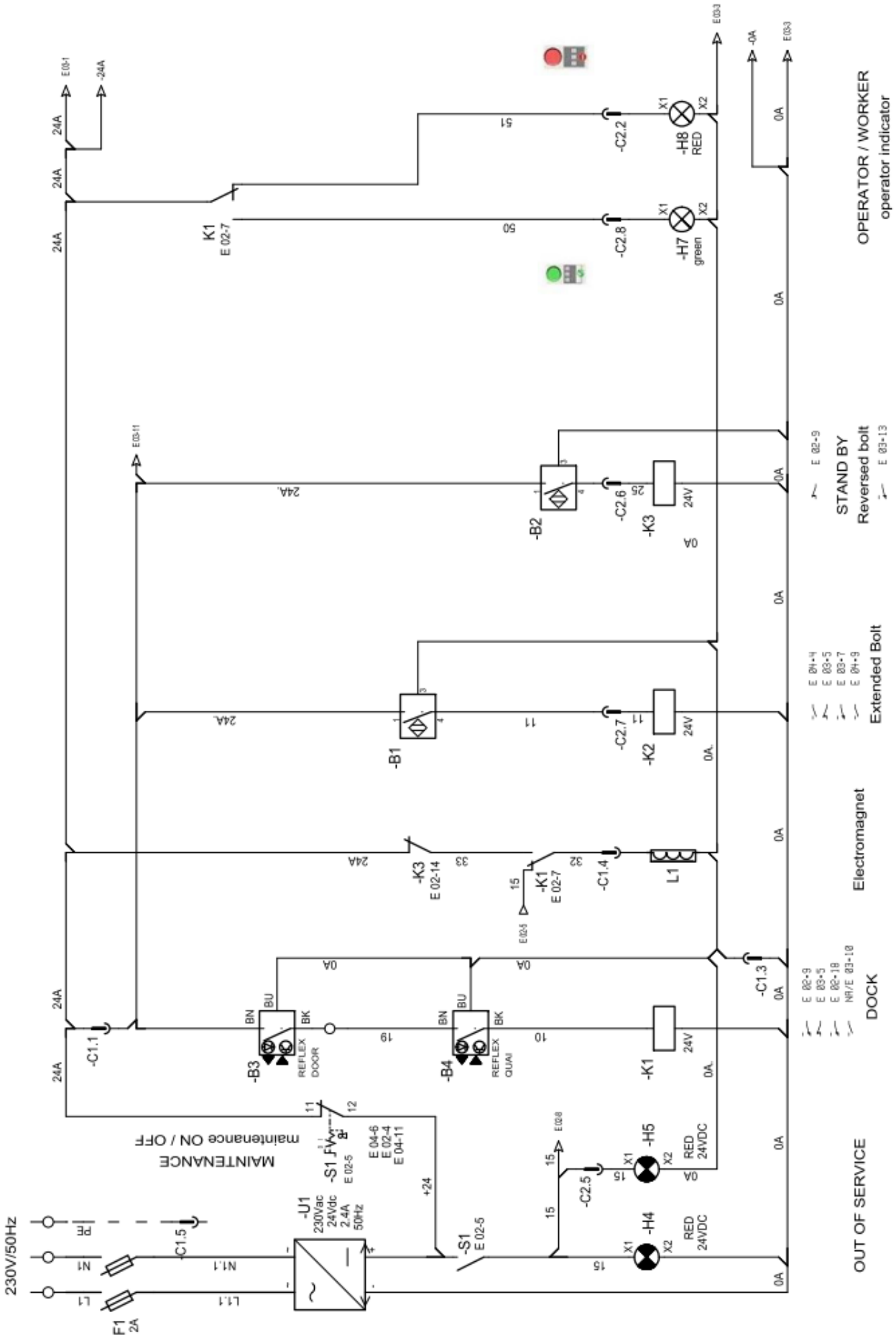
Cable colour codes:

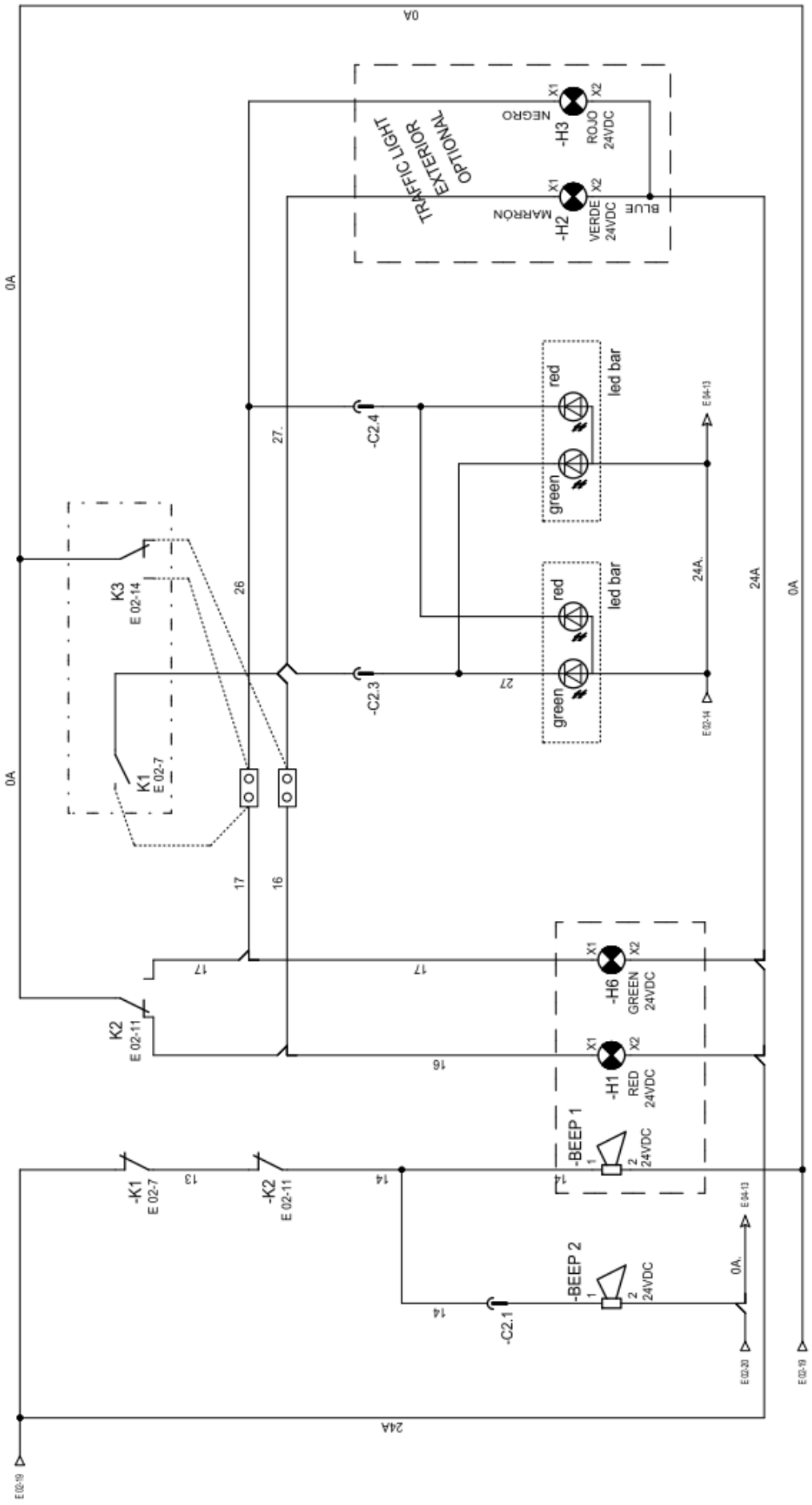
Power circuit: BLACK
Neutral: LIGHT BLUE
Earth: YELLOW / GREEN

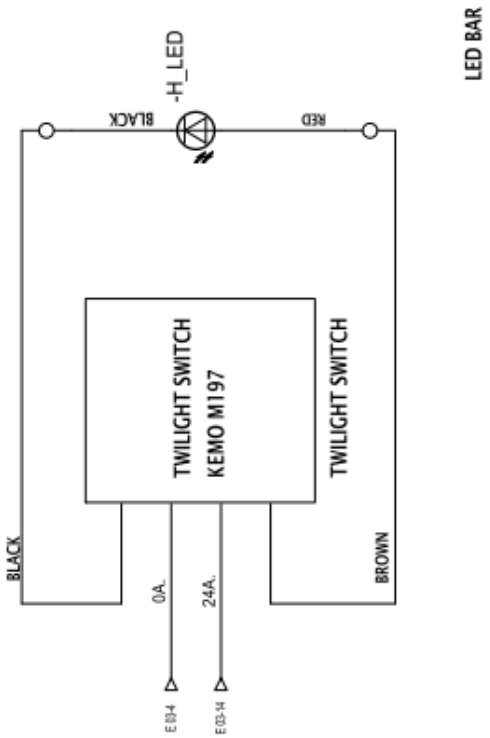
Interconnect circuit
AC/DC exterior : ORANGE

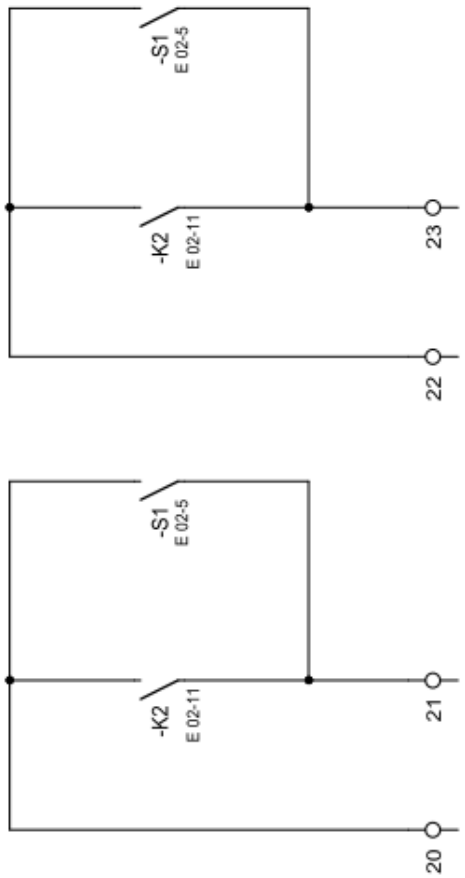
Control circuit higher than 50 V
AC : RED

Control circuit lower than 50 V
Positive : DARK BLUE
Négative : GREY


230V/50Hz
PE
N1
L1
F1
2A
-C1.5
-U1
230Vac
24Vdc
2.4A
50Hz
-S1
E 02-5
maintenance ON / OFF
MAINTENANCE
E 04-6
E 02-4
E 04-11
+24
-S1
E 02-5
-H4
RED
24VDC
-H5
RED
24VDC
-C2.5
OUT OF SERVICE
-C1.1
-B3
REFLEX
DOOR
-B4
REFLEX
QUAI
-K1
E 02-7
-K3
E 02-14
-C1.4
L1
Electromagnet
-C1.3
DOCK
-B1
-K2
-C2.7
Extended Bolt
-B2
-K3
-C2.6
STAND BY
Reversed bolt
-H7
green
-C2.8
-H8
RED
-C2.2
OPERATOR / WORKER
operator indicator
24A
0A
24V


0A
TRAFFIC LIGHT EXTERIOR OPTIONAL
NEGRO
-H3
ROJO
24VDC
MARRON
-H2
VERDE
24VDC
BLUE
red
green
led bar
-C2.4
-C2.3
-C2.1
K3
E 02-14
K1
E 02-7
K2
E 02-11
-H6
GREEN
24VDC
-H1
RED
24VDC
-BEEP 1
-BEEP 2
24VDC
24A
E 02-19
E 02-20
E 04-13
Traffic light by led bars
BOX
ON HOLD
About shoes



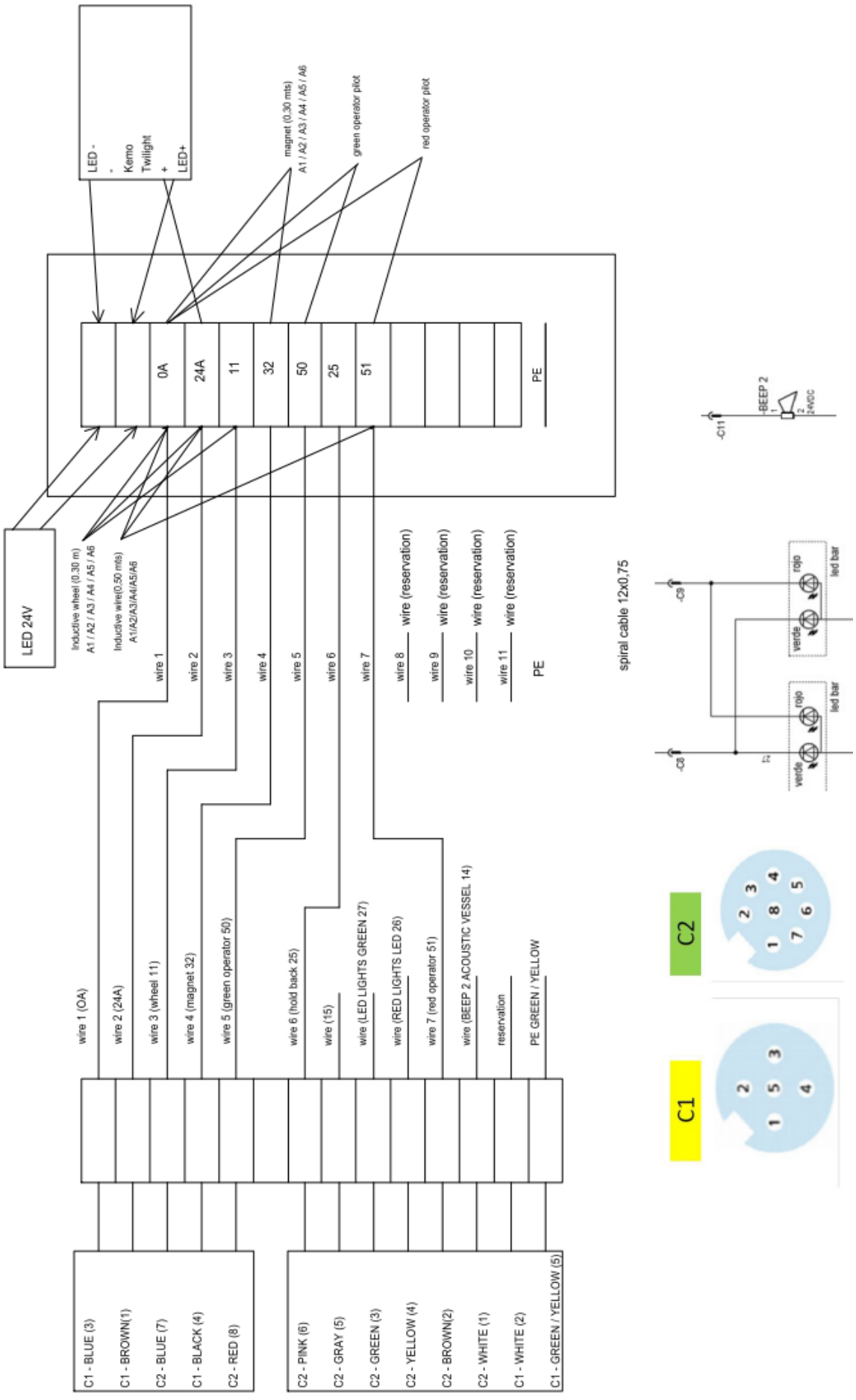


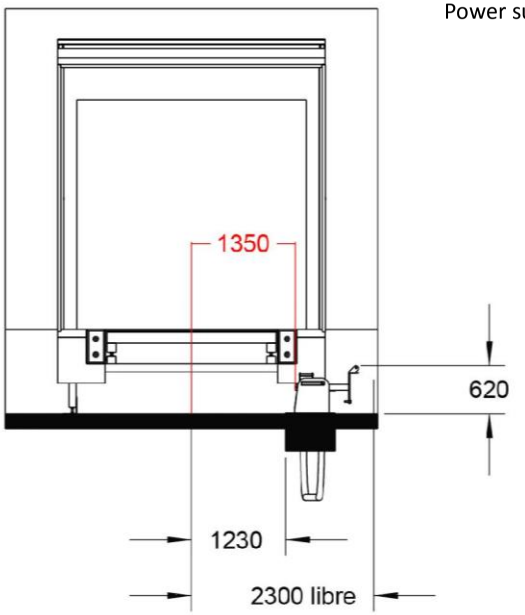
To insert in the series of stops of quality at door.

S1 key contact to deactivate the shim.

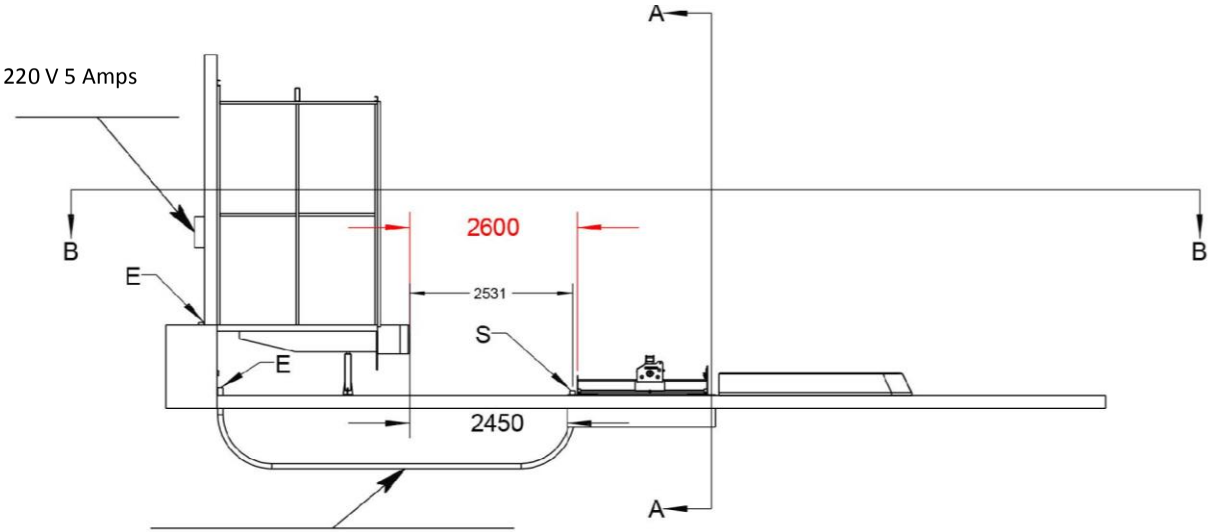
LED BAR

BLACK WIRE (COM, 24V) / BLACK WIRE (COM, 24V)
WHITE WIRE (GREEN COLOR) / YELLOW - GREEN WIRE (GREEN COLOR)
BROWN WIRE (RED COLOR) / BROWN WIRE (RED COLOR)
BLUE WIRE (NOT CONNECT) / BLUE WIRE (NOT CONNECT)

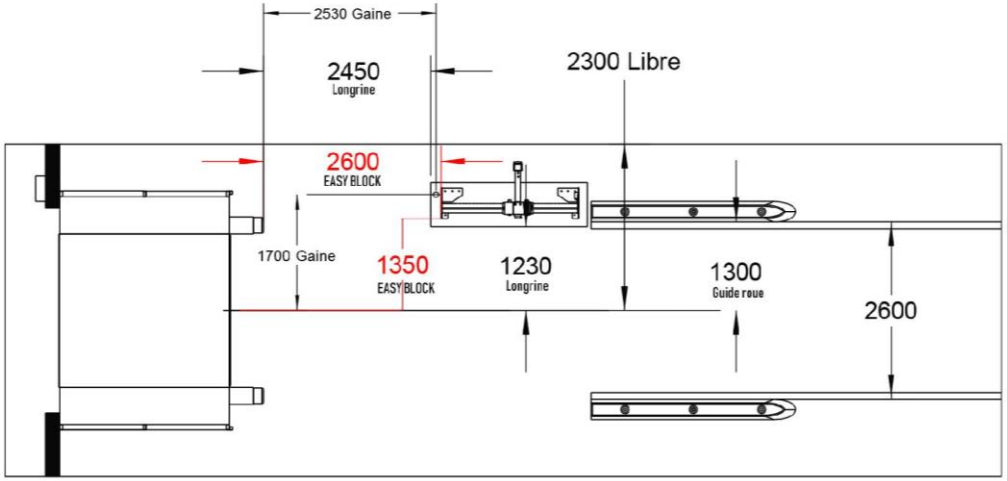

LED -
-
Kemo
Twilight
+
LED+
magnet (0,30 mts)
A1 / A2 / A3 / A4 / A5 / A6
green operator pilot
red operator pilot
0A
24A
11
32
50
25
51
PE
LED 24V
Inductive wheel (0.30 m)
A1 / A2 / A3 / A4 / A5 / A6
Inductive wire(0,50 mts)
A1/A2/A3/A4/A5/A6
wire 1
wire 2
wire 3
wire 4
wire 5
wire 6
wire 7
wire 8
wire 9
wire 10
wire 11
PE
wire (reservation)
wire (reservation)
wire (reservation)
wire (reservation)
spiral cable 12x0,75
-C11
BEEP 2
24VDC
-C8
rojo
verde
led bar
C2
C1
wire 1 (0A)
wire 2 (24A)
wire 3 (wheel 11)
wire 4 (magnet 32)
wire 5 (green operator 50)
wire 6 (hold back 25)
wire (15)
wire (LED LIGHTS GREEN 27)
wire (RED LIGHTS LED 26)
wire 7 (red operator 51)
wire (BEEP 2 ACOUSTIC VESSEL 14)
reservation
PE GREEN / YELLOW
C1 - BLUE (3)
C1 - BROWN(1)
C2 - BLUE (7)
C1 - BLACK (4)
C2 - RED (8)
C2 - PINK (6)
C2 - GRAY (5)
C2 - GREEN (3)
C2 - YELLOW (4)
C2 - BROWN(2)
C2 - WHITE (1)
C1 - WHITE (2)
C1 - GREEN / YELLOW (5)



Control unit
Power supply 220 V 5 Amps



Sheath diam. 40 mm



RESERVATIONS

Before all order, it is necessary to check if the Easyblocks installation is possible.

EASYBLOCK

Installation at 2600 mm from the front of the buffers and 1350 mm from the dock axis (dimensions in red)

ELECTRICAL

220 V monophased power supply + ground 5 Amps
(Plug (advised) or 500 mm free cable at 1100 mm from the ground)
Sheath diam. 40 mm from the inside of the building to the Easyblock

CONCRETE BASE

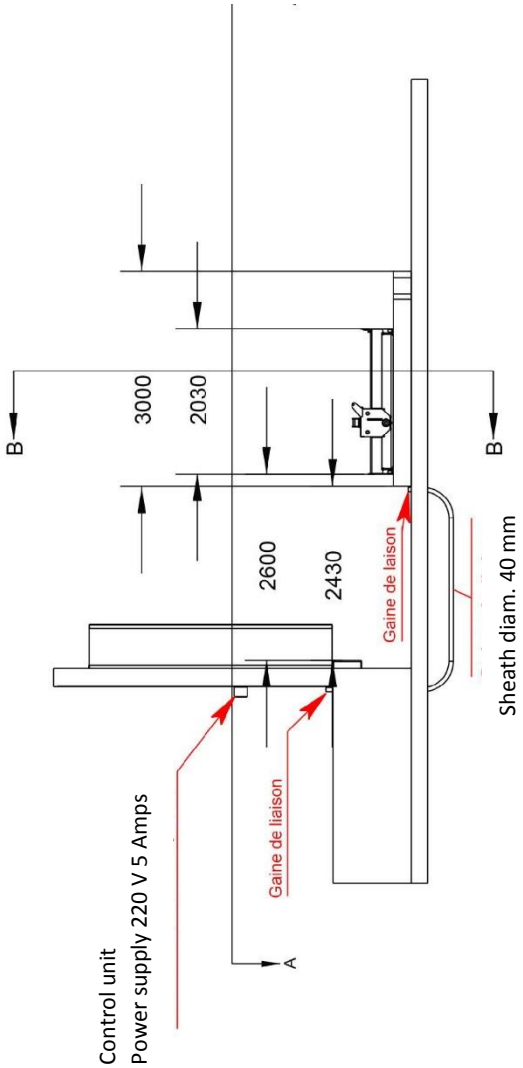
Concrete C25/30 – Length : 2300 mm / Width : 650 mm – Depth : 500 mm

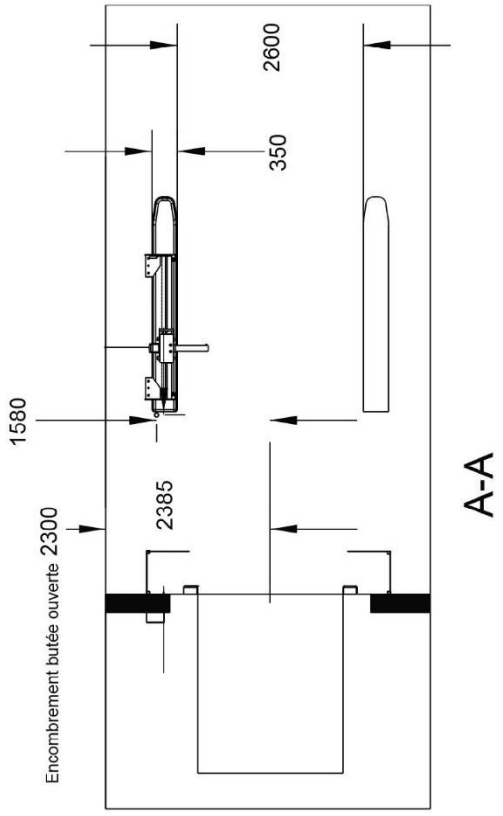
CONCRETE WHEEL GUIDES

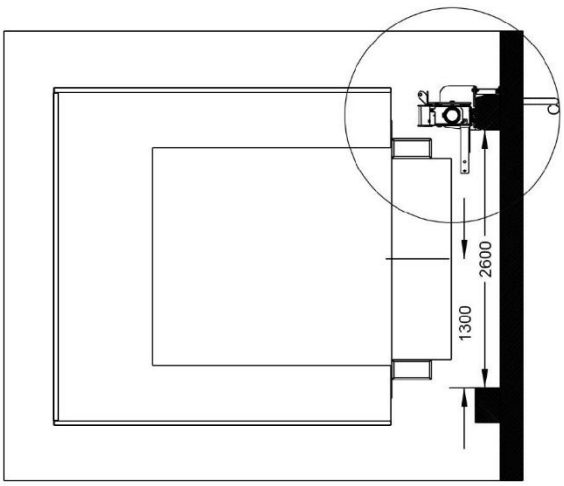
Installation at 5200 mm from the buffers (on concrete base or bitumen)

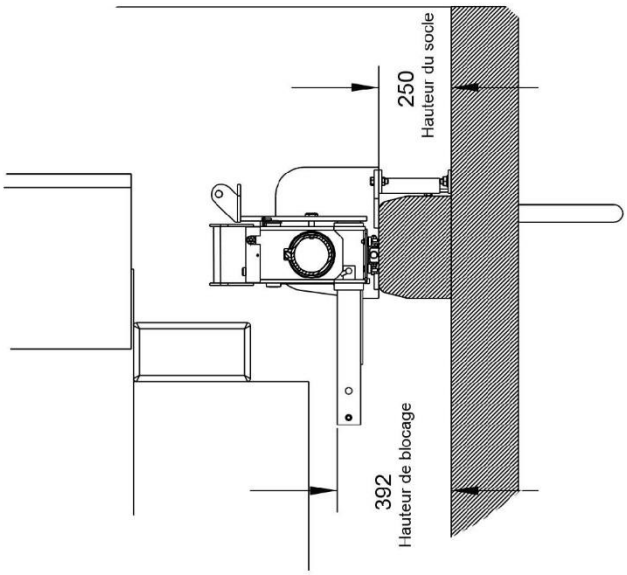
STEEL WHEEL-GUIDES

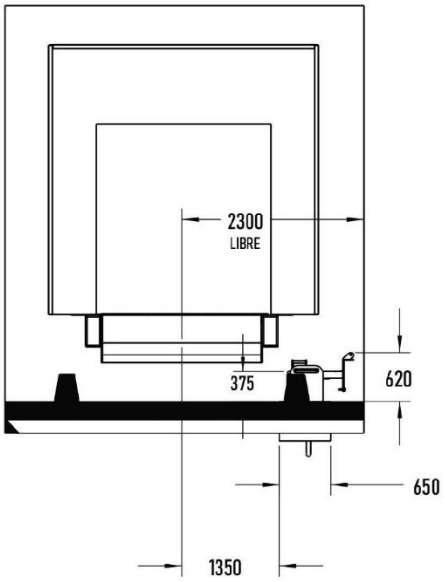
Installation at 5200 mm from the buffers (on concrete base or studs)


B
B
3000
2030
2600
2430
Gaine de liaison
Sheath diam. 40 mm
Gaine de liaison
Control unit
Power supply 220 V 5 Amps
A

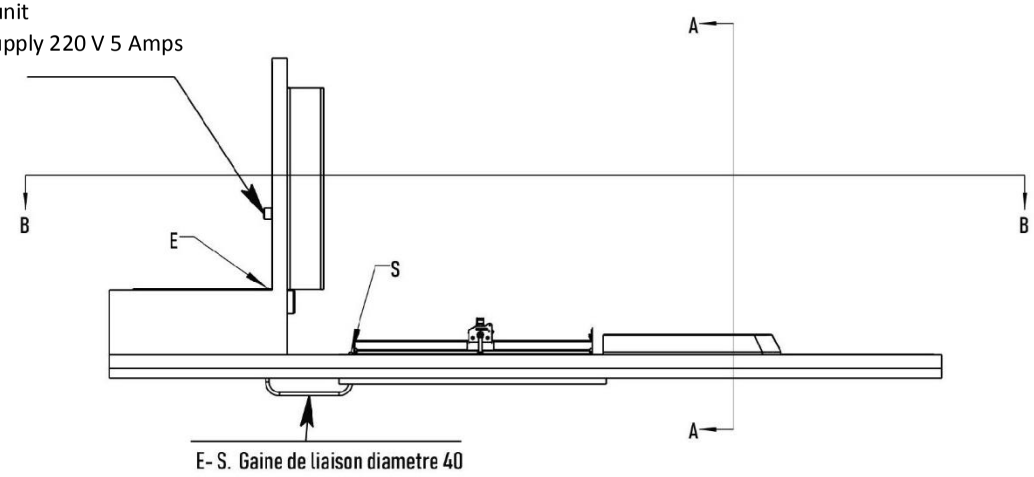

2600
350
1580
2385
2300
Encombrement butée ouverte
A-A

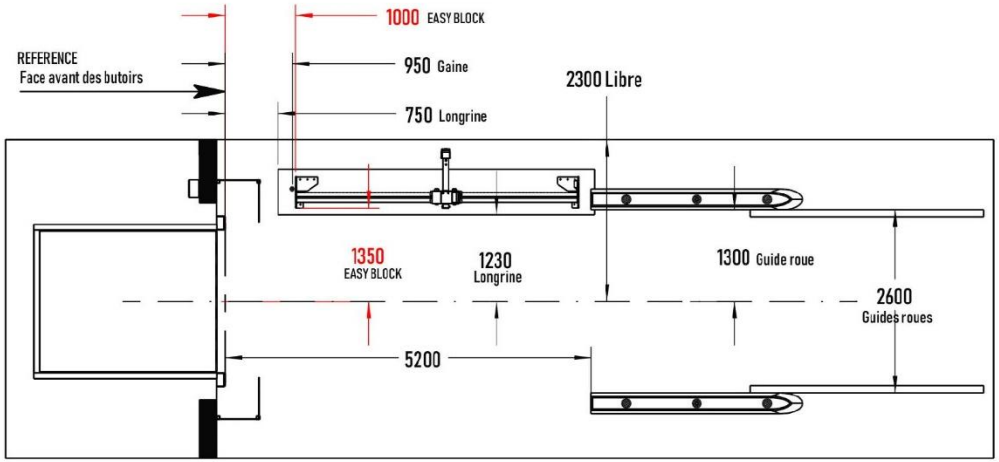

2600
1300


B-B
250
Hauteur du socle
392
Hauteur de blocage



Control unit
Power supply 220 V 5 Amps





RESERVATIONS

Before all order, it is necessary to check if the Easyblocks installation is possible.

EASYBLOCK

Installation at 1000 mm from the front of the buffers and 1350 mm from the dock axis (dimensions in red)

ELECTRICAL

220 V monophased power supply + ground 5 Amps
(Plug (advised) or 500 mm free cable at 1100 mm from the ground)
Sheath diam. 40 mm from the inside of the building to the Easyblock

CONCRETE BASE

Concrete C25/30 – Length : 2300 mm / Width : 650 mm – Depth : 500 mm

CONCRETE WHEEL GUIDES

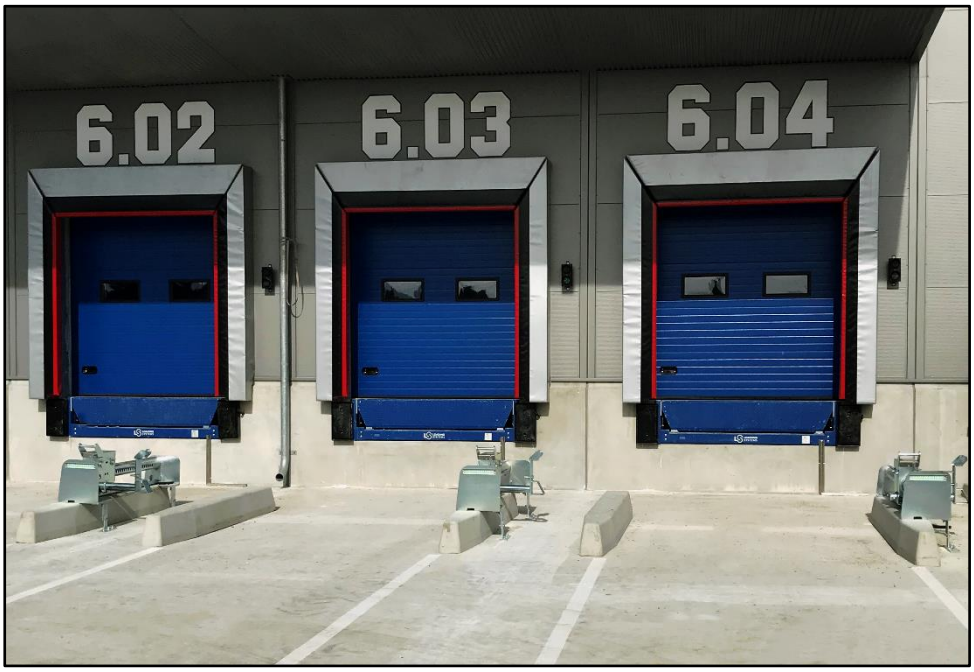
Installation at 5200 mm from the buffers (on concrete base or bitumen)

STEEL WHEEL-GUIDES

Installation at 5200 mm from the buffers (on concrete base or studs)

SUMMARY

Part 2
Service & Maintenance

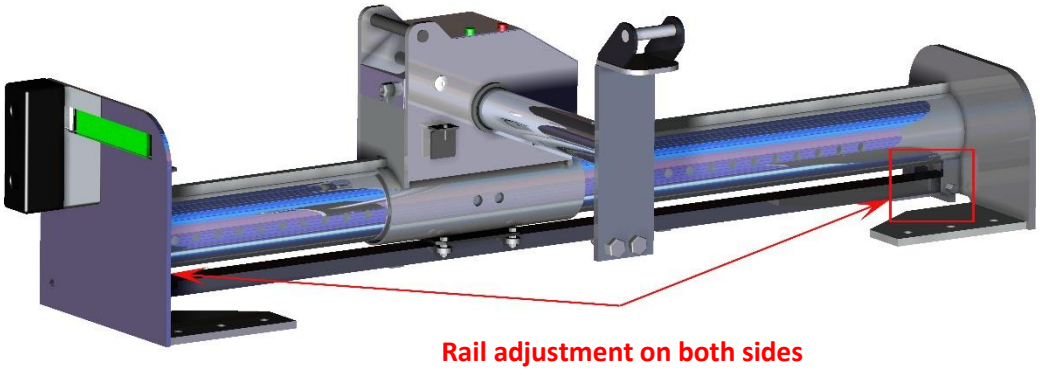


MAINTENANCE

1. Mechanical adjustments

Clean and remove all greasy residue from the guidance tube, the carriage and the wheel-stop (blocking arm).

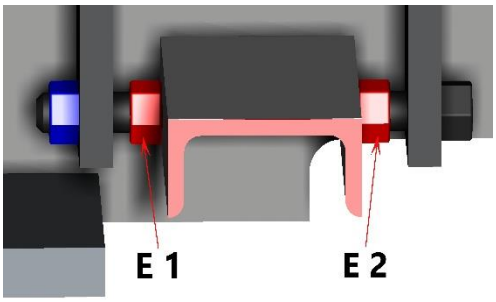
Check that the carriage moves correctly, without forcing, and if appropriate, le lower guidance. If the sliding is difficult, the parallelism must be adjusted by using the bolts under the tube.

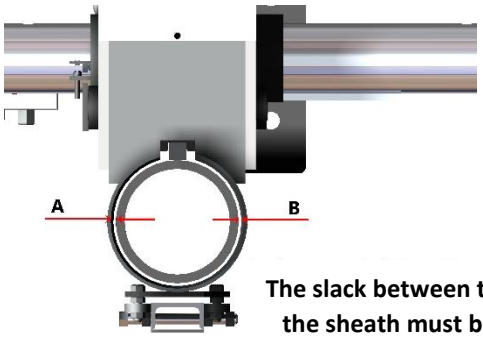


Rail adjustment on both sides

Operating mode:

- Push the wheel-stop about 15 cm
- Position the carriage against one of the lateral plates (for example : towards the dock)
- Check the slack between the tube and the carriages sheath (see below) : it must be balanced, about 3 mm on each side. If it is not the case, untighten the 2 interior bolts (E1 & E2 - the ones that tighten the UPN) - This will allow to adjust the slack between the tube and the sheath, then retighten when the slack is balanced.
- Repeat the operation on the other side.





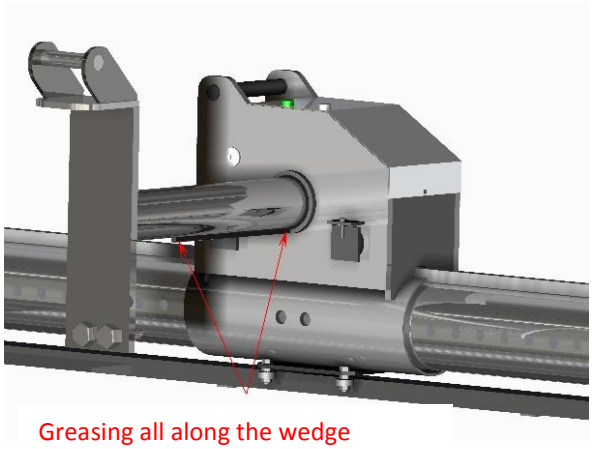
The slack between the tube and the sheath must be balanced

A = B

2. Check the fixings and their tightness

Also check the spiral cable and different cablings.

3. Greasing



Greasing all along the wedge

→ Grease the wheel-stops wedge

Do not grease the wheel-stops axis, but grease the wedge which is situated under the wheel-stop, with lubricant. In case oxidation occurs, we advise to pulverise silicone lubricant type WD40 or similar.

4. Check the Easyblocks general state

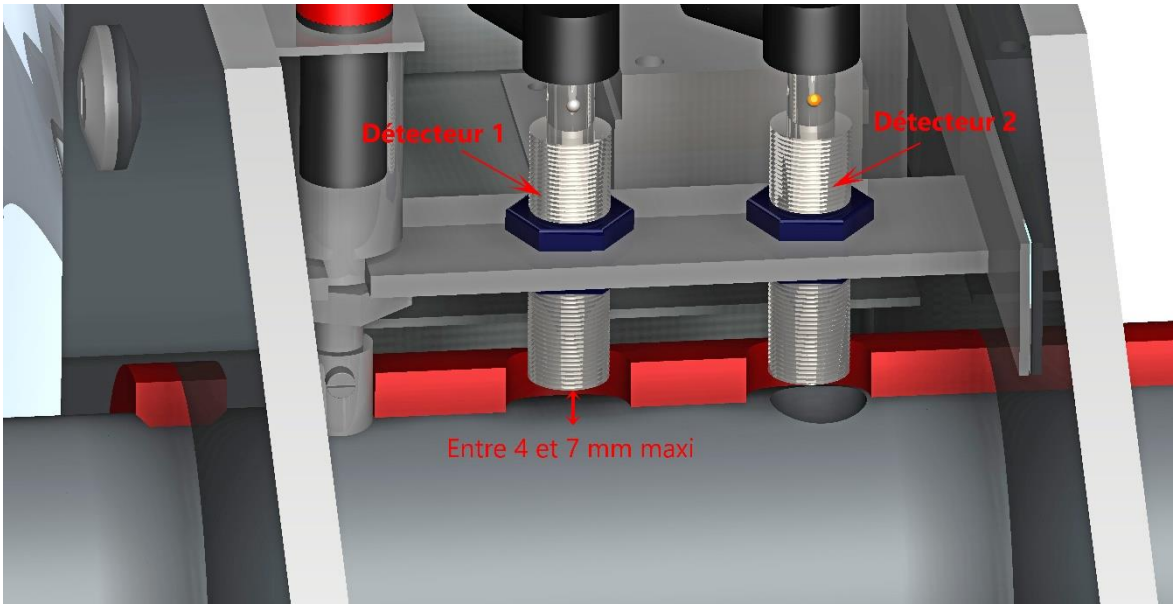
Check for possible impacts. In case of a salin or oxidizing atmosphere, check for possible rust points. After a slight scouring, apply some galvanizing spray (2 spaced layers).

5. Check and adjust sensors and detectors

Check the mechanical state of cleanliness of inductive detectors and sensors. The led lights allow to quickly check their proper functioning.
For H50 version, both detectors are situated under the cover.
For H400 version, one is under the cover, the other is under the carriage.

→ Detector adjustments

Inductive detectors must be adjusted between 4 and 7 mm maximum.
Both of the wheel-stop positioning detectors are positioned under the cover.
They are inductive detectors, 18 mm diameter, with negative function. The LED turns on when there is no metallic presence. When the detector detects the steel wheel-stop, the led turns off as long as the Easyblock is not in front of one of the positioning holes pierced on the blocking arm (front position : pushed / rear position : removed).



When the wheel-stop is withdrawn, detector n°2 is in front of the hole. It does not detect metal so it turns on and the information is transmitted to the control unit that the wheel-stop is withdrawn (detector n°1 is off, it detects the metallic part of the wheel-stop). See figure above (previous page)

When the wheel-stop is fully pushed, detector n°1 is in front of a hole, so turned on and the information is transmitted to the control unit that the wheel-stop is in blocking position (detector n°2 is off, it is in front of the metallic part of the wheel-stop).

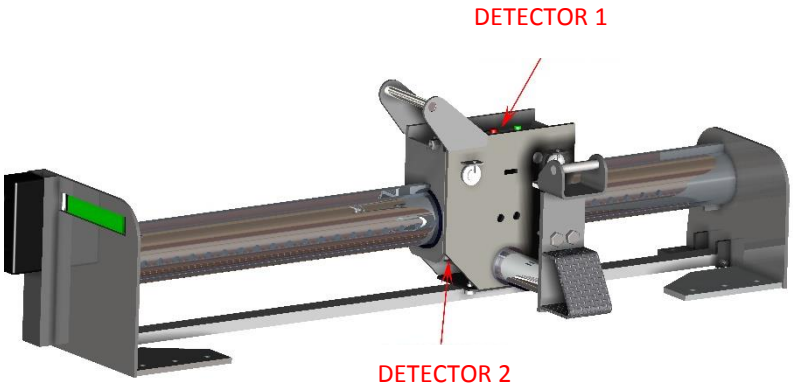
These inductive detectors must be adjusted between 4 and 7 mm from the wheel-stop.
The simplest adjustment consists of positioning the wheel-stop half way, unscrewing the nut on top of the detector so that the detectors front side makes contact with the wheel-stop, then tighten it again (5 whole turns) without forgetting to untighten the bottom nut to allow the detector to move up again).

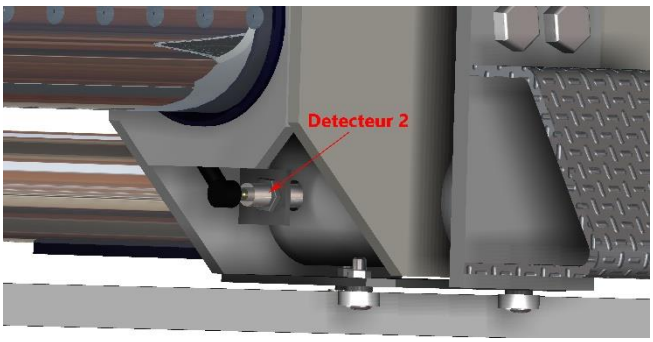
Once the operation is completed, block the detector into position with the bottom nut. The detector must stay alight.

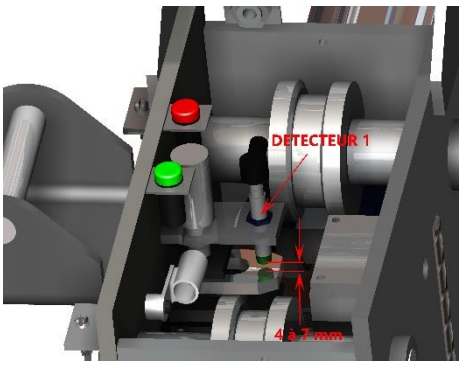
Note: Make sure that the detector is centered to the shealth's hole.

H400 AND H400 XL DETECTORS

Particularity: on these versions, 2 different detectors are installed. The one on the bottom acts the same as the inductive detectors on the H50 version. The top one, which has a smaller diameter (12 mm) acts on the contrary, it detects the metallic part that comes to position itself under the detector when the wheel-stop is fully pushed, the detector turns on and the information is transmitted.







DOOR AND DOCK SENSORS

The infrared sensors must be adjusted between 5 and 15 cm, on a not too dark surface (or rusty). The reflexion surface must be clean. For example, spray a small layer of galvanised paint on the dock's lip which will increase the sensors scope.

The door sensor detects that the door is closed (or almost closed, opened up to 60 cm). It is generally positioned on the doors rail (in the of satefy barriers, it detects that the barrier is closed).
The dock sensor is positioned under the dock, it most often detects the lips position when withdrawn (folded). Check their cleanliness and their functioning, there are 2 leds on the sensor. One of them indicates their power supply, the other their detection. Their reach is 5 to 15 cm maximum, a lateral potentiometer allows to adjust their power.

Photoelectric sensor (3)

Inductive detector 1
Diameter 12 (H400)

Inductive detector 2
Diameter 18 (H50- H400)

12 mm inductive detector (1)
The LED turns on when the metallic part is detected. The detection information is sent when it turns on.

18 mm inductive detector (2)
The LED turns on when no metallic surface is in front of it, it turns off when it detects a metallic surface. It sends the information when it is turned on.

Photoelectric sensor (3) : This sensor contains 2 leds, one green and one orange.
When the green led is on, the sensor is under voltage (power supplied).
When it detects an object, the orange led turns on (the green led must stay on).
When the green led turns off during detection (orange led turns on), this means that the reach is too narrow. In this case, adjust the reach with the potentiometer (on the sensor).
In clockwise direction, the reach increases. In anticlockwise direction, the reach decreases.
If the reach is at a maximum, clean the detection surface, or paint it a light colour.
If it is not sufficient, reduce the detection distance by bringing the sensor closer.
Dans le sens d'une aiguille d'une montre, elle augmente la portée. Dans l'autre sens, la portée est diminuée.

6. Electromagnet

Check that the electromagnet is working correctly.
With the help of another person inside the building to operate the door, the wheel-stop must be pushed and the door slightly open (above the sensor). The traffic light is red and the light on the cover is also red. The wheel-stop must be blocked. Close the door, the light on the cover turns green: the wheel-stop can be removed.

7. At the end of maintenance procedure

It is essential to check the smooth functioning of all of the lights and beepers. For this, simulate vehicle presence, loading procedure and departure.
Two certified people are necessary for this operation, who will take all necessary security precautions.

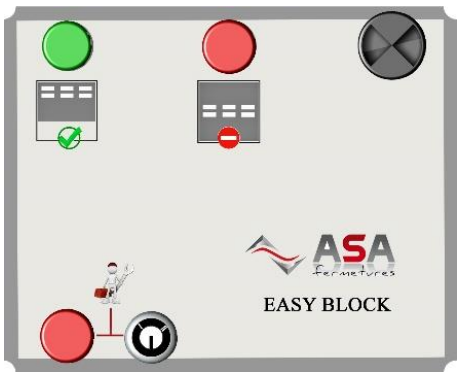
MAINTENANCE CHART

Check points	OK	To repare	To replace	To do	DANGER Out of Order
Check and grease the wheel-stop					
Check the door and dock sensors					
Check the systems positioning sensors					
Check the door - dock - restraint system link					
Check the electromagnet					
Check the bearings and rollers					
Adjust the carriages alignment					
Check the fixings tightening					
Check the interior/exterior led lights					
Check the electrical cables					
Check the control unit and clean the front of it					
Try the “out of order” function					
Check the general state and function of the whole system					

OBSERVATIONS :

For the dock operator

Two lights on the control unit indicate operations for the operator:



Green led light ON (left)

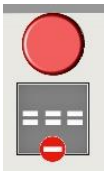
=

Vehicle blocked : the operator can manoeuver the door and dock.

Red led light ON (right)

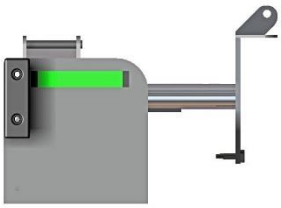
=

No restraint = no vehicle : impossible to manoeuver door and dock

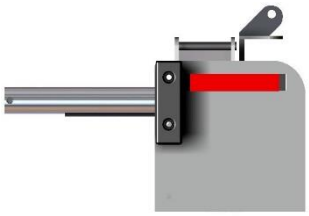


For the driver

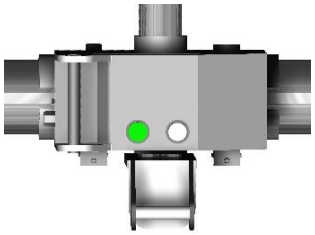
Green light = The truck can manoeuver



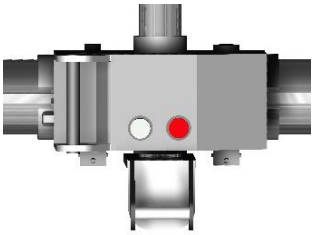
Red light = Forbidden to manoeuver



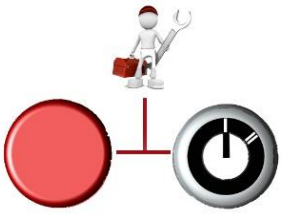
Green light = Possible to manoeuver the wheel-stop



Red light = Impossible to manoeuver the wheel-stop



Note : When the light is red, the wheel-stop is locked by the electromagnet.



The maintenance key (which is also used for troubleshooting) allows the operator to put the Easyblock out of service, which allows the door and dock to be used.

La clef de maintenance (et de dépannage) sert à mettre hors circuit le système de blocage Easyblock, permettant d'utiliser la porte et le quai. The electromagnet is activated which neutralizes the Easyblock and allows the wheel–stop to be removed.

RECOMMENDATIONS :

The Easyblock is not operational so the risks are important: risks of falling from the dock, the vehicle can leave without notice, etc.

We strongly advise the person who is authorized to use this key to take all possible security measures to avoid these dangerous situations for the users.

We also ask all transhipment operations to be postponed when the maintenance position is activated: the red light is on, on the inside and outside. Furthermore, the exterior signalization lights are off.

In case of extended use, we advise the control unit's power supply to be switched off and for the dock to be condemned.

ASA Fermetures and it's dealers accept no responsibility if these measures are not applied. Action on this key is the user's responsibility.

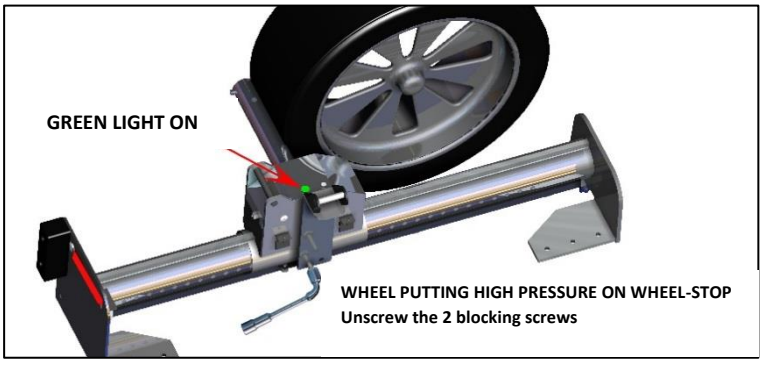
In the chart below are the different incidents that can happen and their troubleshooting solution.
In most cases, an impact or improper use of the Easyblock can cause these incidents.
Maintenance is a regular care that can avoid more than 80% of these incidents.

ELECTRICAL		
SYMPTOM	CHECK POINTS	ACTIONS
Tension light not alight (turned off)	Check power supply arrival, stalibilized alimentation (green light)	Stabilized alimentation will go into fault mode if there is a short circuit. Check through deduction, by unplugging, for example, the connector under the control unit which supplies the whole Easyblock part.
Red maintenance light alight (turned on)	It indicates that the maintenance key has been actioned. The Easyblock is unlocked, the electromagnet is actioned, and the exterior lights are turned off.	By using the key, put the Easyblock back into action. The red maintenance light must now turn off.
Green exterior light The dock is in resting position, the door is closed, but the wheel-stop cannot be removed and the beeper makes noise when someone tries to remove the wheel-stop.	Check the dock and door sensors. The detection lights should be turned on. Check the detection surface on the dock, the sensors alignment and their distance (which can be adjusted by the potentiometer situated behind the sensor). If the sensor is not turned on, check the cabling. Remove the Easyblock's cover and check the electromagnet. SEE "ELECTROMAGNET"	Dock sensor Slightly sand the receptor surface and paint it a light colour (galvanized) Bring the sensor closer Reposition the sensor
The wheel-stop is correctly positioned, completely pushed, but the exterior light does not turn red	Check that the light is still operational Check the inductive detector 1, it must be alight. See "SENSOR ADJUSTMENTS"	Completely remove the wheel-stop : the green light must turn on If the light turns green, adjust detector 1's distance (caution: make sure that the wheel-stop was fully pushed with the guide in front of the holes pierced on the guidance tube) If the light does not turn green, check the led light and its cabling.
The wheel-stop is completely removed, but the light does not turn green (stays red)	Check the distance between the inductive sensor 2 SEE "SENSOR ADJUSTMENTS"	Completely push the wheel-stop. The light must turn red. If the light turns redn adjust the distance of detector 2. If the light does not turn red, check the led light and its cabling.

MECHANICAL

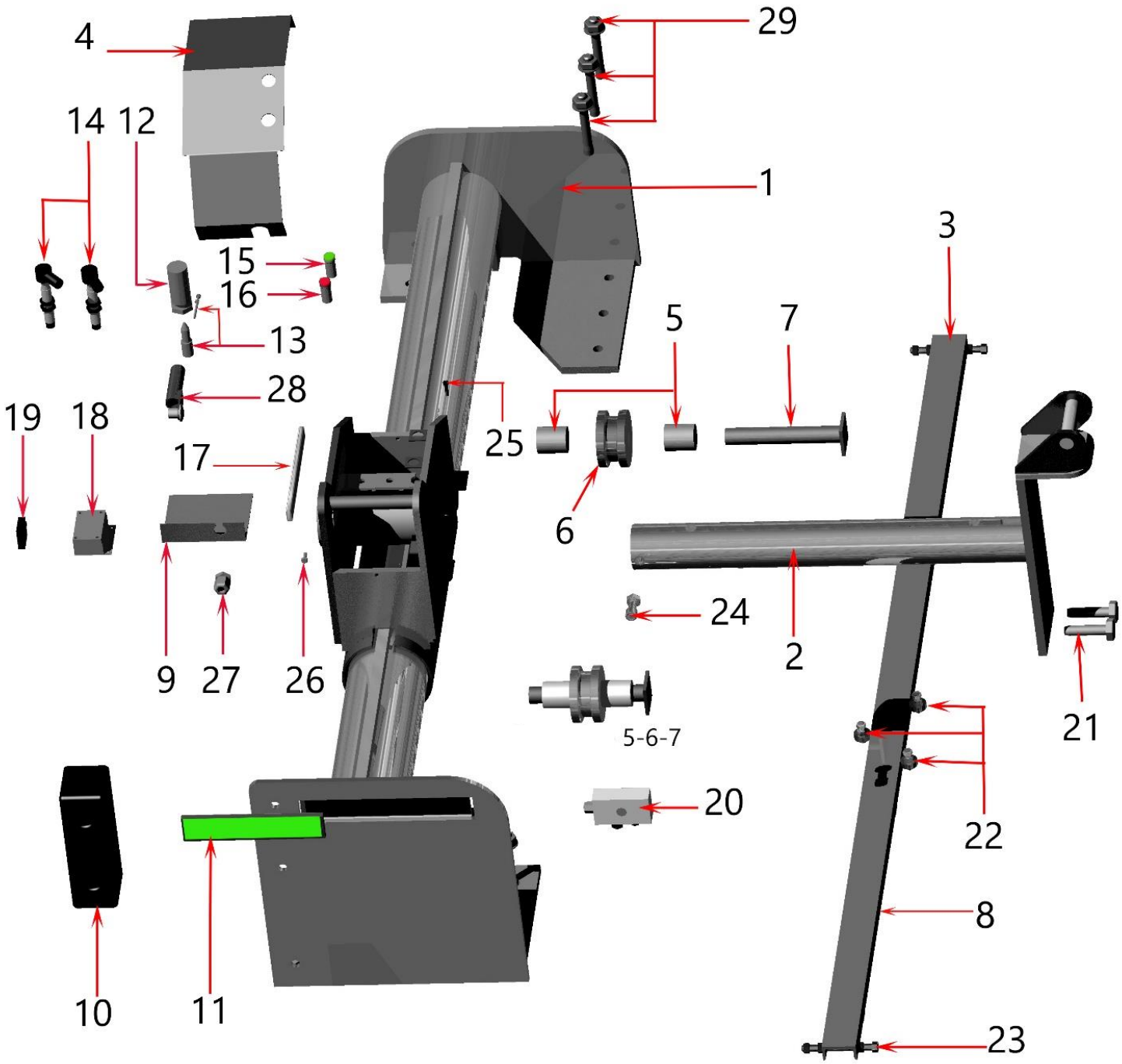
Do not grease the guidance tube or the wheel-stop. It is possible to pulverise dry lubrifiants, but in time, grease will give the opposite of the desired effect.
(Only grease the wedge under the wheel-stop, but very slightly, see GREASING)

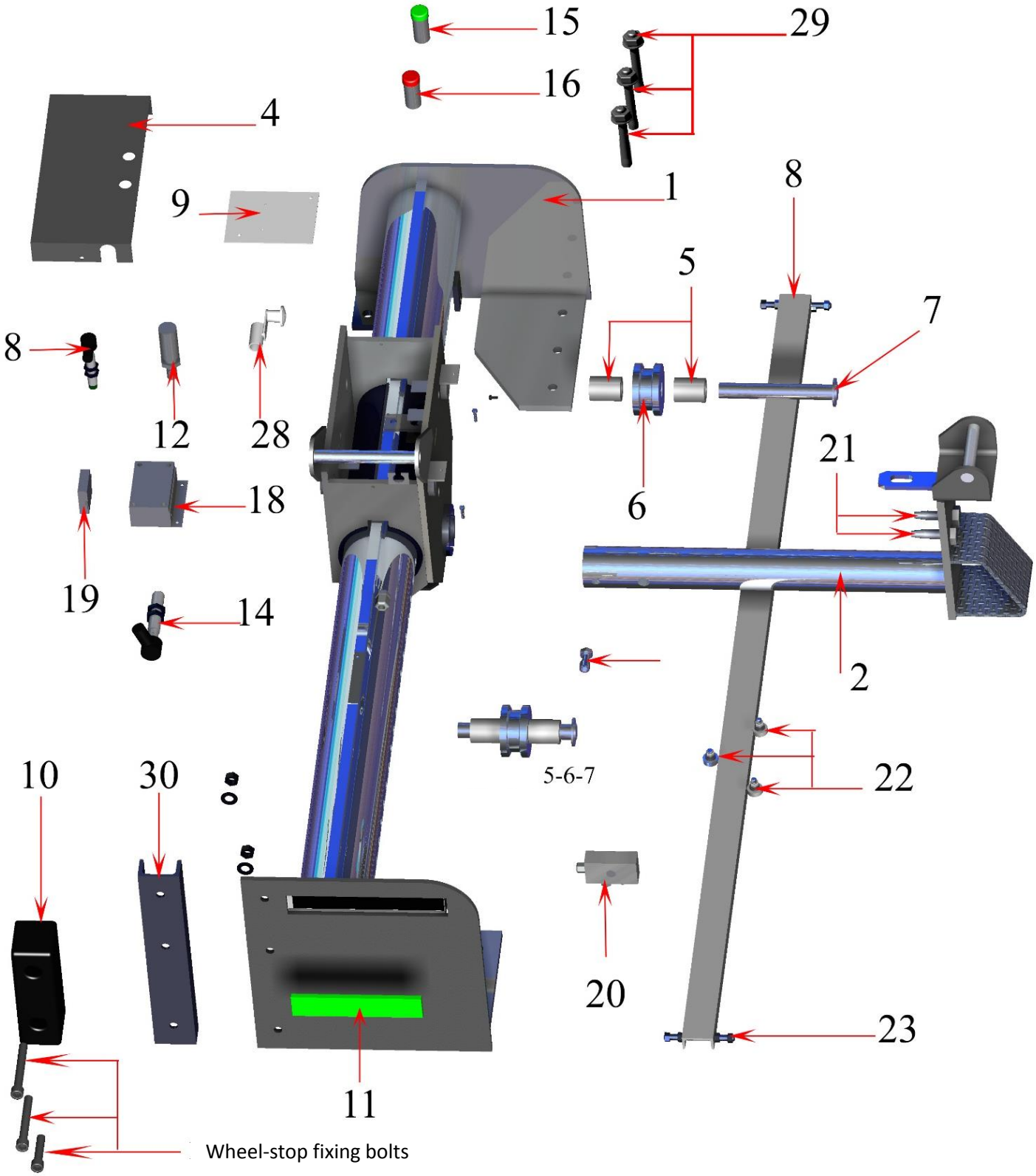
SYMPTOM	CHECK POINT	ACTIONS
The carriage is difficult to manoeuver	Check the guidance adjustment, the slack between the carriage and the tube must be identical at left and at right, the carriage must not rub against the tube See MECHANICAL ADJUSTMENTS	If the carriage rubs, adjust the slack with the nuts situated on each side of the UPN used as guidance for the bearings positioned under the carriage. Adjust one side, then the other, by positioning the carriage on the side where the adjustment is being made.
The carriage is very difficult to manoeuver.	Push the wheel-stophalf way so that the weight is balanced. If this action does not make the manoeuver easier, this means that the guidance bearing is broken.	Remove the main cover and the cover that gives access to the bearing and roller. Check the bearing's state positioned under the second cover (this bearing can split or break after very important impacts). Note : the first bearing is the one that receives all of the most important impacts.
The wheel-stop is difficult to manoeuver	Check that the wheel-stop has not been bent after an impact.	Very slightly grease the wedge under the wheel-stop, check it's state for oxidation, lubricate with WD40 spray or similar.
The wheel-stop cannot be removed, the wheel is making strong pressure on the wheel-stop.	The wheel must not be on pressure on the wheel-stop, except if it is making slight pressure.	Solution 1 : If the vehicule has a pneumatic suspension, lower the suspension to release space. Solution 2 : Move back the vehicle completely so that it touches the buffers. Solution 3 : Unscrew the 2 screws which are used as buffers (on the handle opposite the holes on the tube). Caution, the carriage may move back suddenly a few centimeters when the last screw is removed.



On this split view, certain fixing screws are not mentioned, like the 2 M6 screws that fix the protective cover, the 2 M6 screws that block the axis, and the screws that fix the buffers.

The reference of the below parts are the ones mainly used. Please refer to these references for all spare part order. Split views allow the different parts to be easily identified.




15
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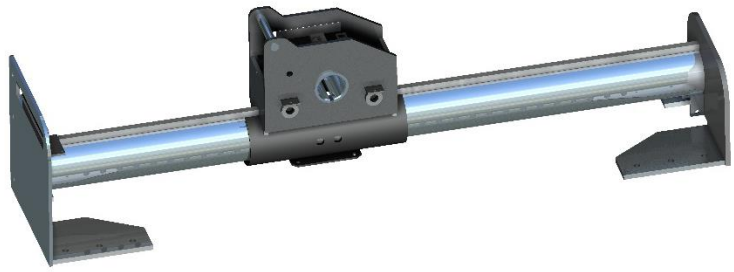
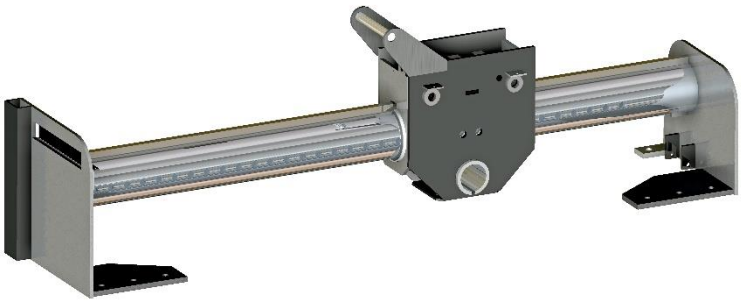
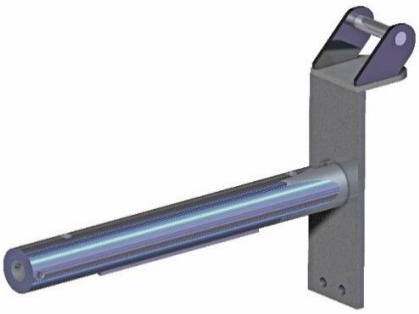
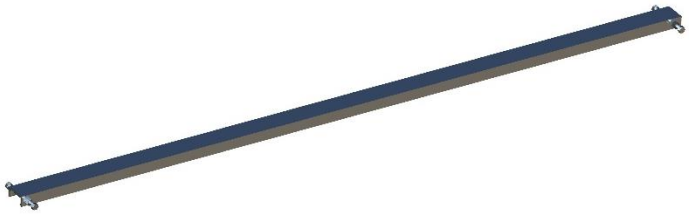
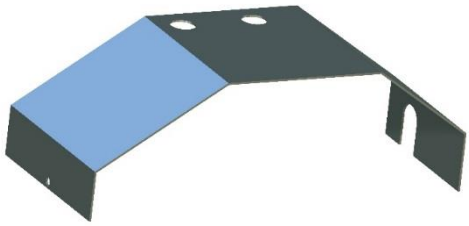
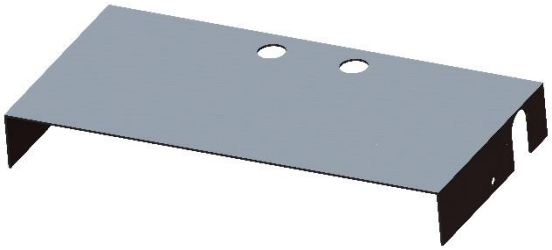
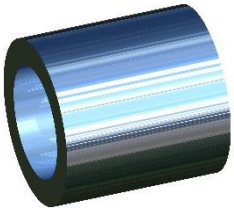
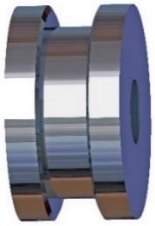
11
Wheel-stop fixing bolts

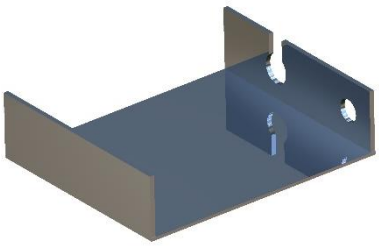
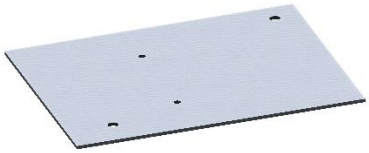
1	Structure
2	Wheel–stop (version H50/H400)
3	Guidance rail (Standard and XL version)
4	Protective cover
5	Spacer (4)
6	Roller (2)
7	Axis (2)
8	Inductive sensor ∅ 18 (2)
9	Interior cabling support
10	Buffer
11	Front traffic light
12	Electromagnet
13	Electromagnet tip with screws
14	Inductive sensor ∅ 18 (2)
15	Green led light

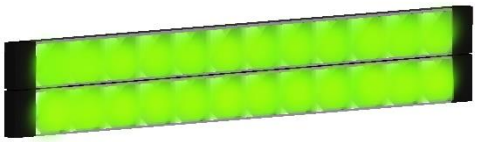
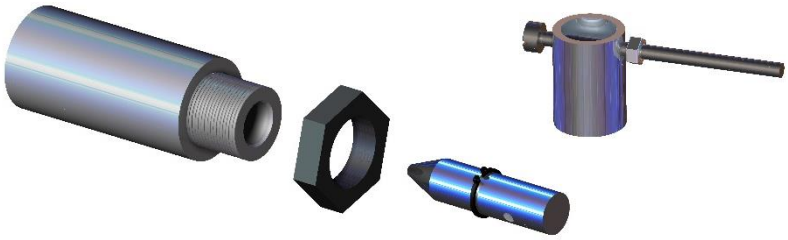
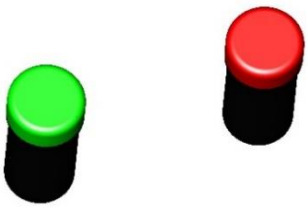
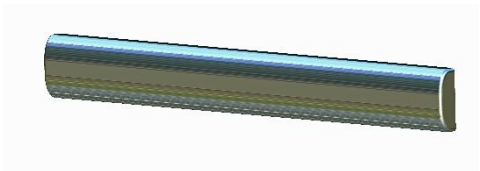
16	Red led light
17	Safety lights (twilight)
18	Interior distribution box
19	Twilight detector
20	Distribution box with spiral cable
21	Blocking screw (2)
22	Guidance bearing with screws (3)
23	Rail adjustment bolt (2)
24	Wheel–stop bolt
25	Axis blocking bolt (2)
26	Cover fixing screw
27	Cable gland
28	Option : unlocking key
29	Anchor bolts ∅ 16 (8)
30	Protective UPN

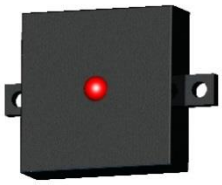
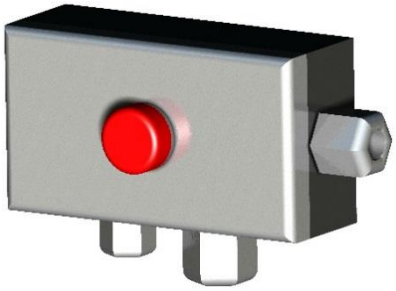
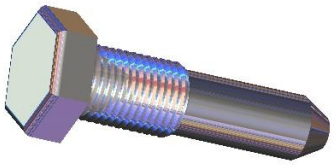
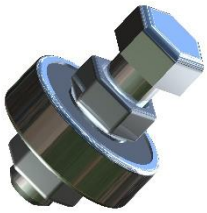
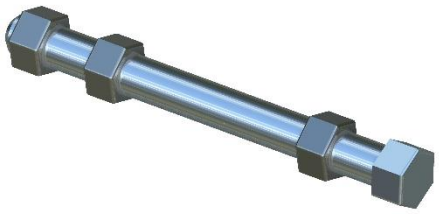
Référence des pièces mécaniques

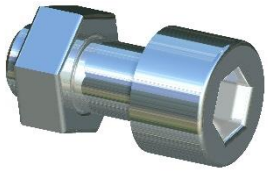
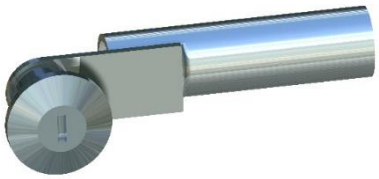
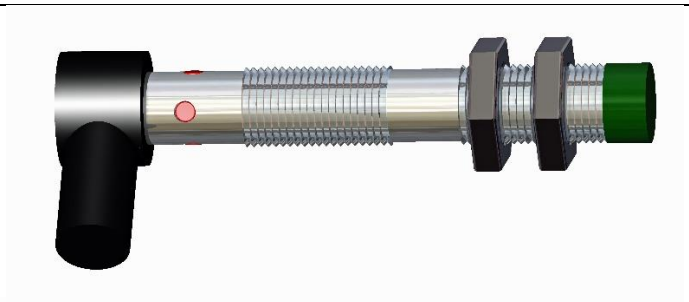
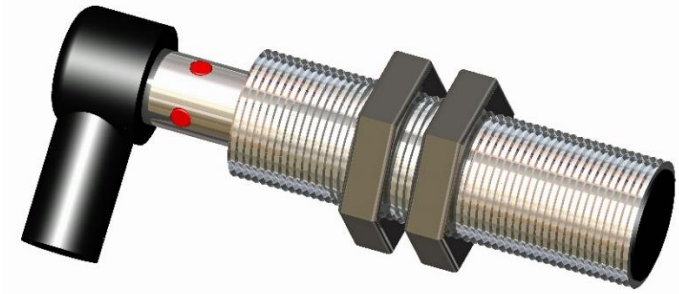
	STRUCTURE Version 1 : H50 L = 2030 mm Ref. : E60 Version 2 : H50XL L = 4030 mm Ref. : E60XL
	STRUCTURE Version 1 : H400 L = 2030 mm Ref. : E61 Version 2 : H400XL L = 4030 mm Ref. : E61XL
	WHEEL STOP Version H50 & H50XL L = 600 mm Ref. : E52
	WHEEL STOP Version H400 ^{2} H 400XL L = 600 mm Ref. : E78

	GUIDANCE RAIL Version H50 & H400 Ref. : E63 Version H50XL & H400XL Ref. : E63XL
	PROTECTIVE COVER Version H50 & H50XL Ref. : E69
	PROTECTIVE COVER Version H400 & H400XL Ref. : E70
	SPACER (4) All versions Ref. : E6
	ROLLER (2) All versions Ref. : E62

	AXIS (2) All versions Ref. : E10
	INTERIOR CABLING SUPPORT Versions H50 & H50XL Ref. : E72
	INTERIOR CABLING SUPPORT Versions H400 & H400XL Ref. : E73
	FIXINGS FOR WHEEL GUIDES (H400) Fixed on concrete base(2) Ref. : N/A
	FIXINGS FOR WHEEL GUIDES (H400) Fixed on wheel-guides (2) Ref. : N/A

	BUFFER All versions Ref. : E25
	FRONT TRAFFIC LIGHT (RED & GREEN) All versions Ref. : 11823819
	ELECTROMAGNET WITH TIP & SCREWS All versions Ref. : E17
	JOINT ELECTROMAGNET All versions Ref. : N/A
	GREEN & RED LED LIGHT All versions Ref. : 11823817 (green) Ref. : 11823818 (red)
	SAFETY LIGHTS (TWILIGHT) Versions H50 & H50XL Ref : 11823820 Versions H400 & H400XL Ref. : 11823821

	INTERIOR DISTRIBUTION BOX All versions Ref. : E74
	TWILIGHT DETECTOR All versions Ref. : N/A
	EXTERIOR DISTRIBUTION BOX (without cables) All versions Ref. : E19
	BLOCKING SCREW (CARRIAGE) All versions Ref. : E16
	GUIDANCE BEARING WITH SCREWS (3) All versions Ref. : E14
	RAIL ADJUSTMENT BOLT (2) All versions Ref. : N/A

	WHEEL-STOP BOLT All versions Ref. : E13
	UNLOCKING KEY (OPTION) All versions Ref. : E71
	INDUCTIVE SENSOR ∅ 12 Versions H400 & H400XL Ref. : Omron 12
	INDUCTIVE SENSOR ∅ 18 All versions Ref. : Omron 13
	PHOTOELECTRIC SENSOR All versions Ref. : Omron 11

OBSERVATIONS

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