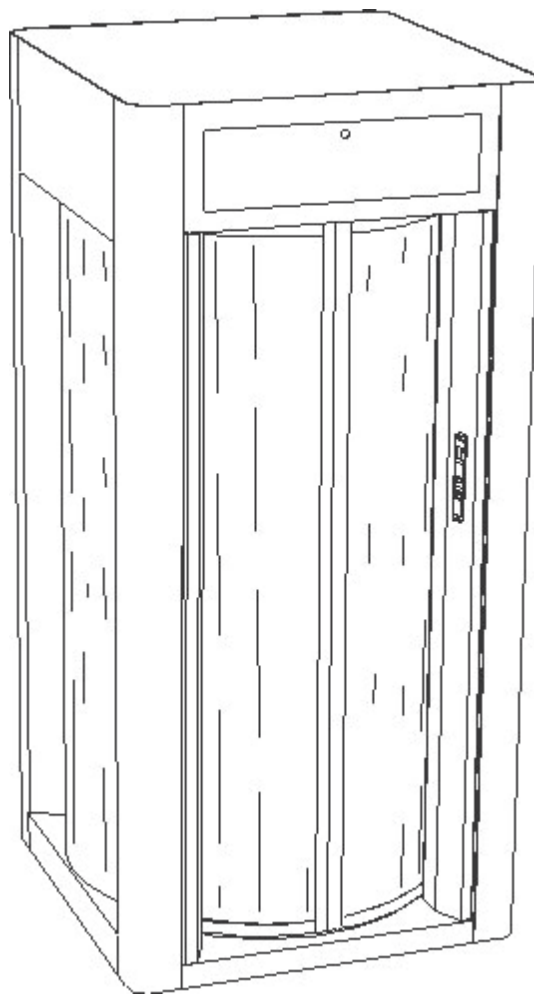# MINISUN

2 DOORS   4 DOORS

TECHNICAL HANDBOOK

SAIMA SICUREZZA S.p.A.

Indicatore 60/G - 52100 AREZZO - ITALY
Tel. +39 0575 9291 Telefax +39 0575987097
Telex 574074 SAIMA I
E-Mail: sicurezzaservice@saimanews.com
http://www.saimanews.com

CE

SUMMARY

SYSTEM MAINTENANCE

Placing and maintenance

This handbook must be used only by qualified technicians and authorised by SAIMA SICUREZZA Spa

Warnings

- Do not walk on the booth's roof.

- Before you do any type of maintenance switch the main power off.

- Do not close circuit the batteries.

- Always place the protection guard behind the panel after maintenance.

- There is a small internal panel where the main switch can be accessed and the security system can be adjusted.

- After unpacking and before you proceed to assemble the booth, put away all the material in a dry and clean place.

- Testing, adjustments and activating the booth must be done only by a qualified professional technician.

- All maintenance even if minor, must be done by a qualified professional technician.

I - STRUCTURE AND COMPONENTS

Main switch and on switch

Table 01
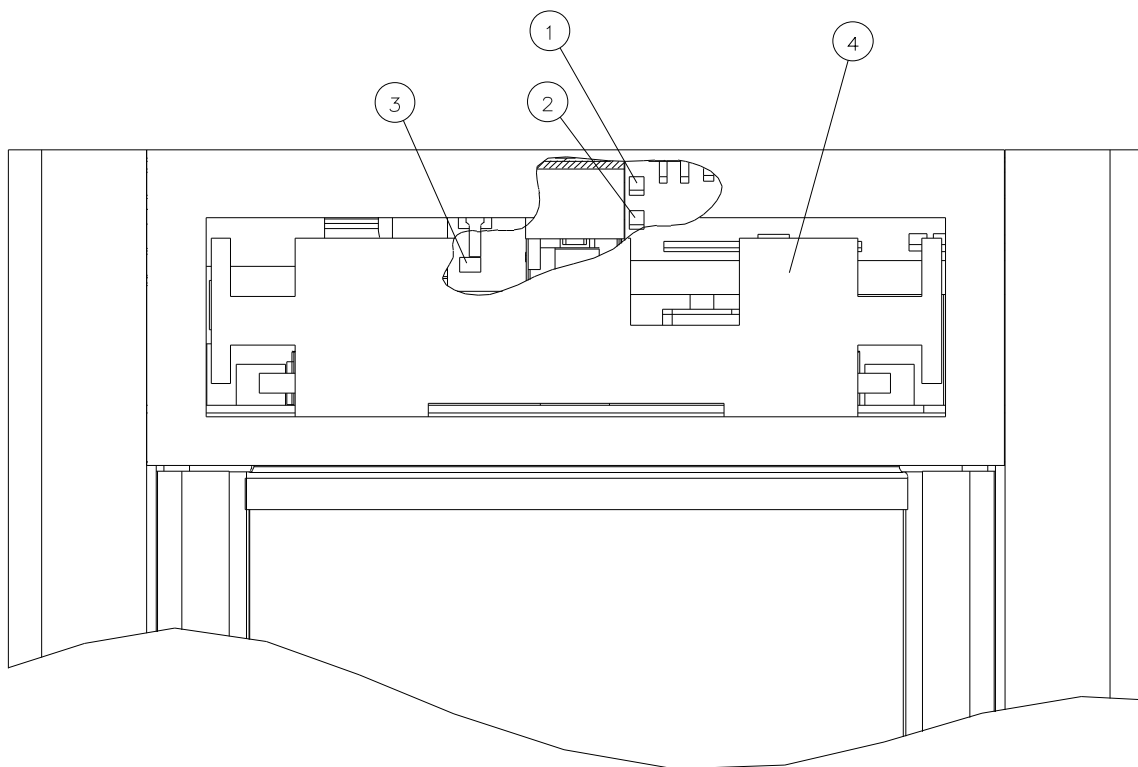
Inside view with open inspection panel

1) - Booth's ON/OFF switch.
2) - Switch to run booth on batteries.
3) - Switch 220 V.
4) - Anti accident guard.

The starting switch (part.n.2) after the batteries have run down allows to have a reserve of energy so that the booth can work for an extra period of time. This switch must be used only in case of emergency since it can ruin the batteries when they are charging and there may be the need to substitute them.

Top View 2 shutters

Table 02

Internal
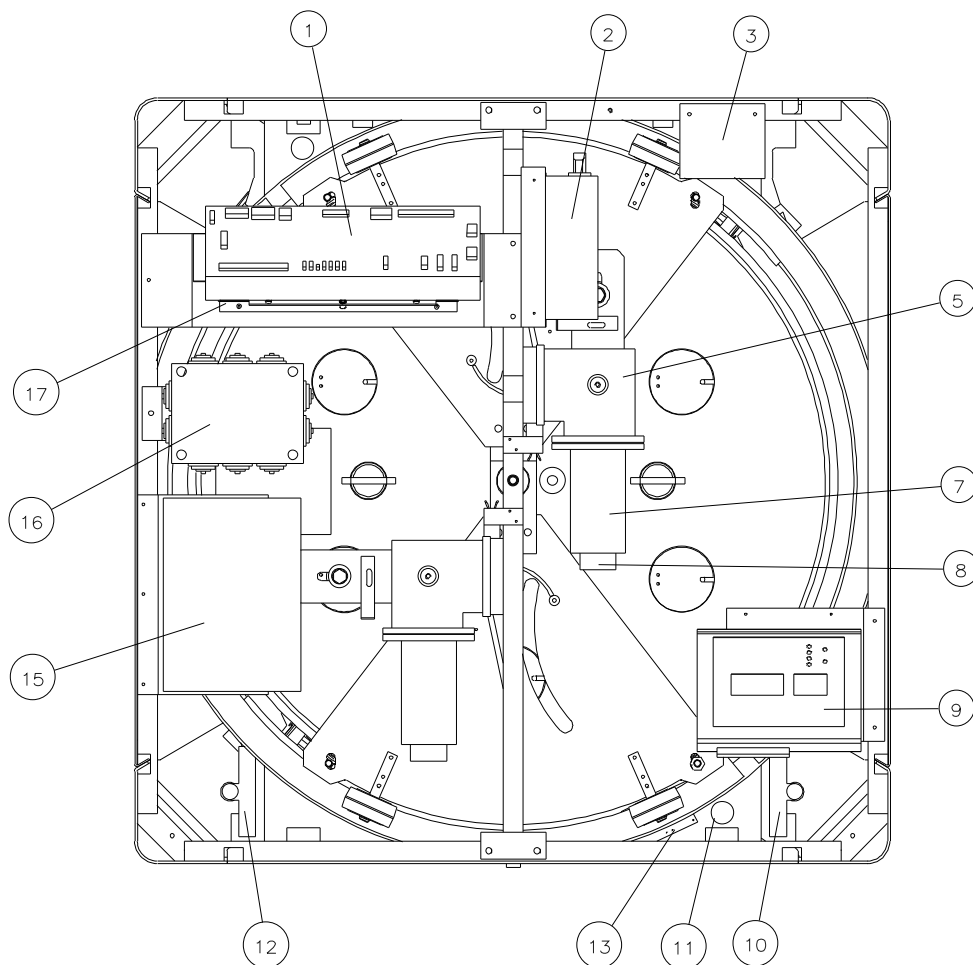
External

Components list table 02.

PARTICULARS.	Q.TY.	CODE.
1 - Main board.	1	**5205305**
2 - Power supply.	1	**5205727**
3 - Main anti accident photocell board.	1	**5205078**
5 - Reducer.	2	**5005904**
7 - Motor.	2	**5105226**
8 - Encoder.	2	**5206032**
5+7+8 - Motor reducer group.	2	**5105903**
9 - Metal Detector main board.	1	**5206089**
10 - Metal Detector TX column.	1	**5207151**
11 - Speaker.	1	**5805868**
12 - Metal Detector RX column.	1	**5207152**
13 - Mechanical lock.	1	**5300961**
Mechanical lock cylinder.	1	**5303657**
Mechanical lock microswitch.	1	**5200067**
15 - Management box for emergency exit (optional).	1	**5207851**
16 - Box for auxiliary board I/O 315 (optional).	1	**5207391**
17 - Emergency batteries.	2	**50982A12V**

Top View 4 shutters

Table 03

Internal
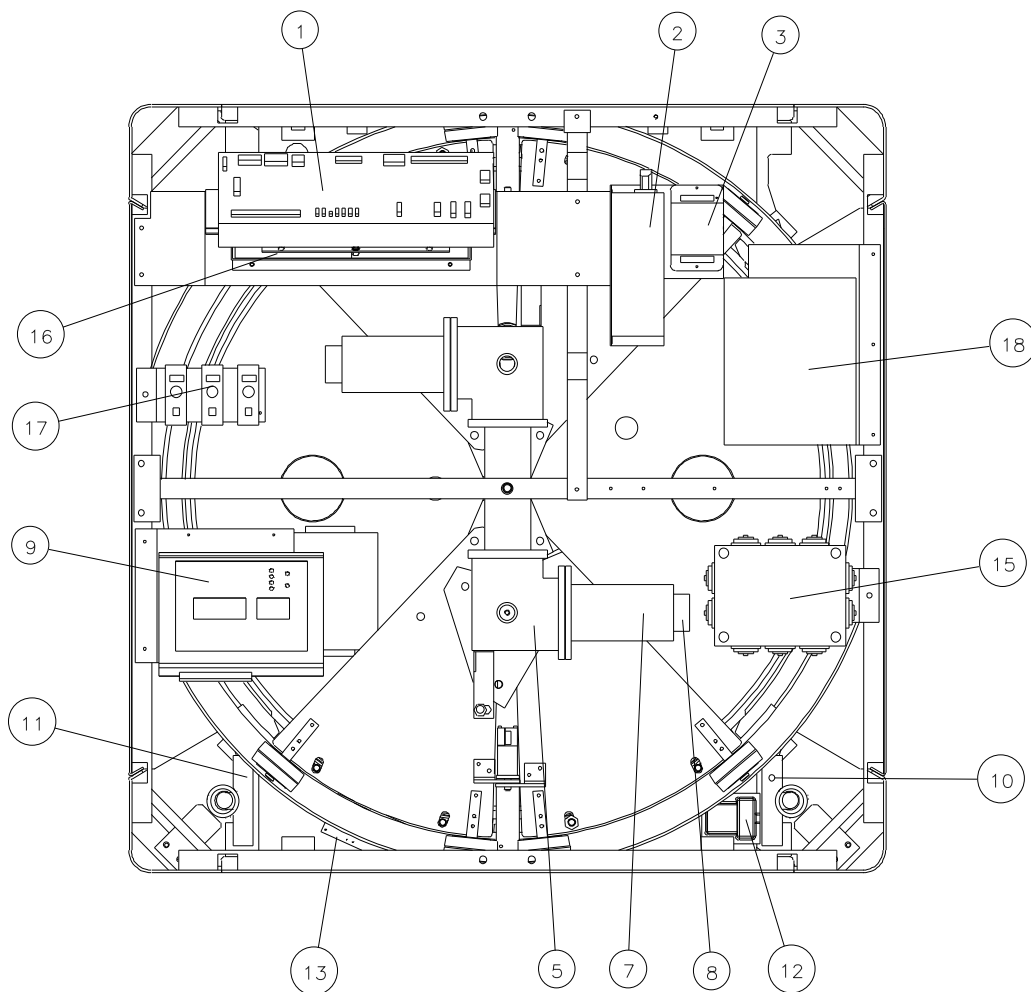
External

Components list table 03.

PARTICULARS.	Q.TY.	CODE.
1 - Main board.	1	**5205305**
2 - Power supply.	1	**5205727**
3 - Main anti accident photocell board.	1	**5205078**
5 - Reducer.	2	**5005904**
7 - Motor.	2	**5105226**
8 - Encoder.	2	**5206032**
5+7+8 -Motor reducer group.	2	**5105903**
9 - Metal Detector Main Board.	1	**5206089**
10 -Metal Detector TX column.	1	**5207151**
11 -Metal Detector RX column.	1	**5207152**
12 - Speaker.	1	**5805868**
13 - Mechanical lock.	1	**5300961**
Mechanical lock Micro switch.	1	**5303657**
Mechanical lock cylinder.	1	**5200067**
15 - Box for auxiliary board I/0 315 (optional).	1	**5207391**
16 - Emergency batteries.	2	**50982A12V**
17- Electro piston tension reducer board.	3	**5207798**
18 - Management box for emergency exit (optional).	1	**5207851**

SAIMA

Section design main view (I) 2shutters

Table 04
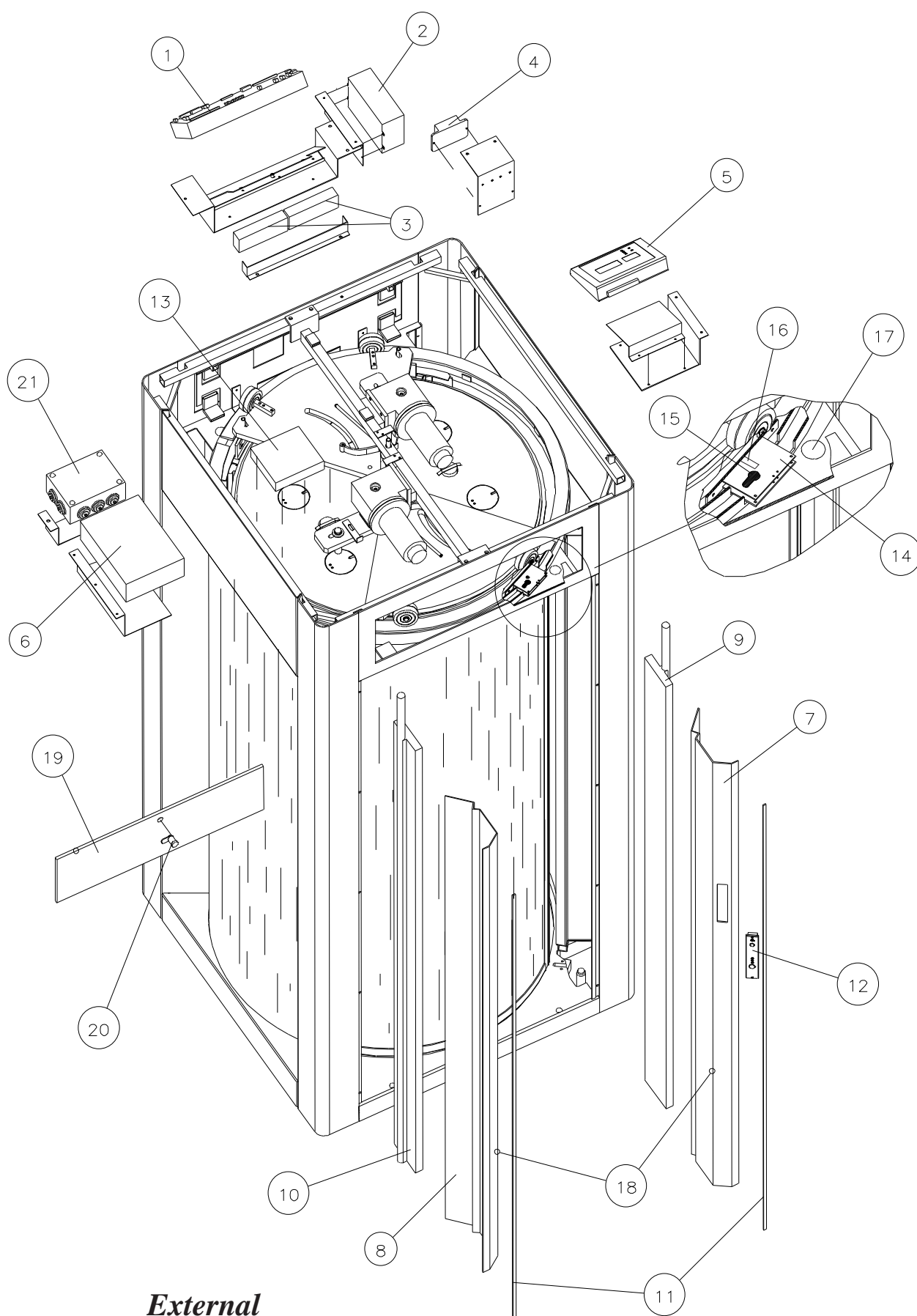
External

Components list table 04.

PARTICULARS.	Q.TY.	CODE.
1 - Main board.	1	**5205305**
2 - Power supply.	1	**5205727**
3 - Emergency batteries.	2	**50982A12V**
4 - Main anti accident photocell board.	1	**5205078**
5 - Metal Detector Main Board.	1	**5206089**
6 - Management box for emergency exit (optional)	1	**5207851**
7 - Push button panel.	2	**410708874**
8 - Unmarked panels.	2	**4103113**
9 - Metal Detector TX column.	1	**5207151**
10 -Metal Detector RX column.	1	**5207152**
11 – Magnets.	4	**4400267**
12 – Push button panel with intercom.	1	**5205306**
13 - SUN aerial main board management.	1	**5201762**
14 – Mechanical lock.	1	**5300961**
15 - Mechanical lock cylinder.	1	**5303657**
16 – Mechanical lock Micro switch.	1	**5200067**
17 - Speaker.	1	**5805868**
18 - Accident prevention photocells.	2 Pairs	**5204239**
19 - External panel.	1	**440337933R2**
20 – Panel cylinder.	1	**5163351**
21 – Box for auxiliary board I/0 315 (optional).	1	**5207391**

Section design main view (I) 4 shutters

Table 05

External
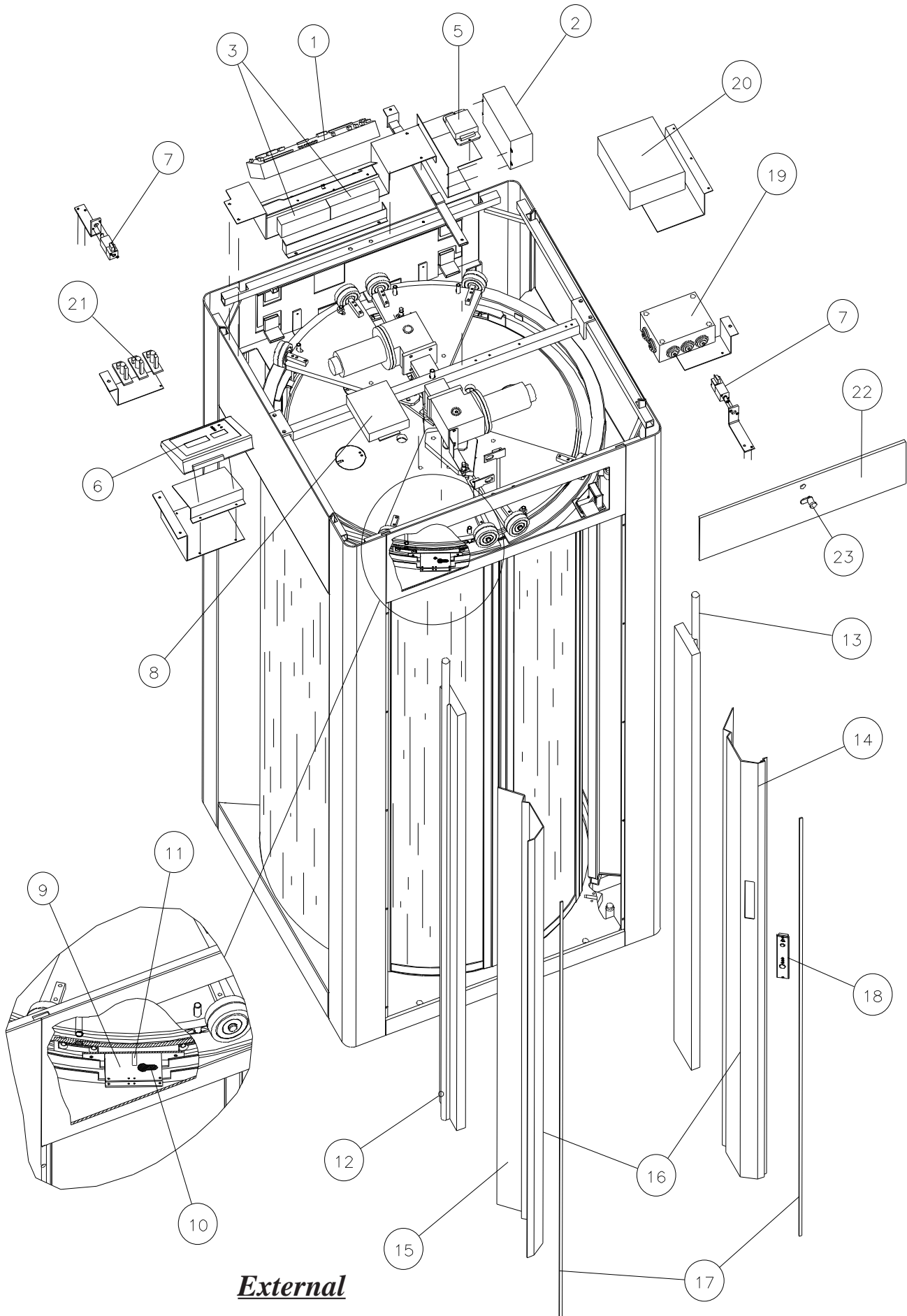
Components list table 05.

PARTICULARS.	Q.TY.	CODE.
1 - Main board.	1	**5205305**
2 - Power supply.	1	**5205727**
3 - Emergency batteries.	2	**50982A12V**
5 - Main anti accident photocell board.	1	**5205078**
6 - Metal Detector Main Board.	1	**5206089**
7 - Electro piston door block.	2	**5104732**
8 - SUN aerial main board management.	1	**5201762**
9 - Mechanical lock.	1	**5300961**
10 - Mechanical lock cylinder.	1	**5303657**
11 – Mechanical lock Micro switch.	1	**5200067**
12 -Metal Detector RX column.	1	**5207152**
13 -Metal Detector TX column.	1	**5207151**
14 - Push button panel.	2	**410708874**
15 – Unmarked panels.	2	**4103113**
16 - Accident prevention photocells.	2 Pairs	**5204239**
17 – Magnets.	4	**4400267**
18 – Push button panel with intercom.	1	**5205306**
19 – Box for auxiliary board I/0 315 (optional).	1	**5207391**
20 – Management box for emergency exit (optional).	1	**5207851**
21- Electro piston tension reducer board.	3	**5207798**
22 - External panel.	1	**440337933R2**
23 – Panel cylinder.	1	**5163351**

Internal section design view

Table 06
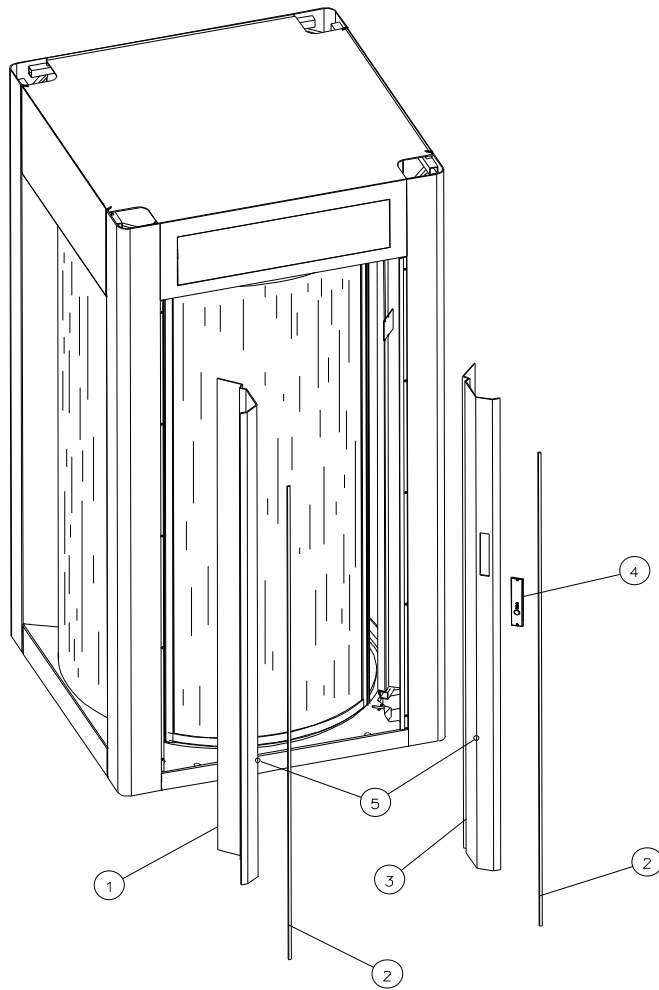
2 shutters

4 shutters
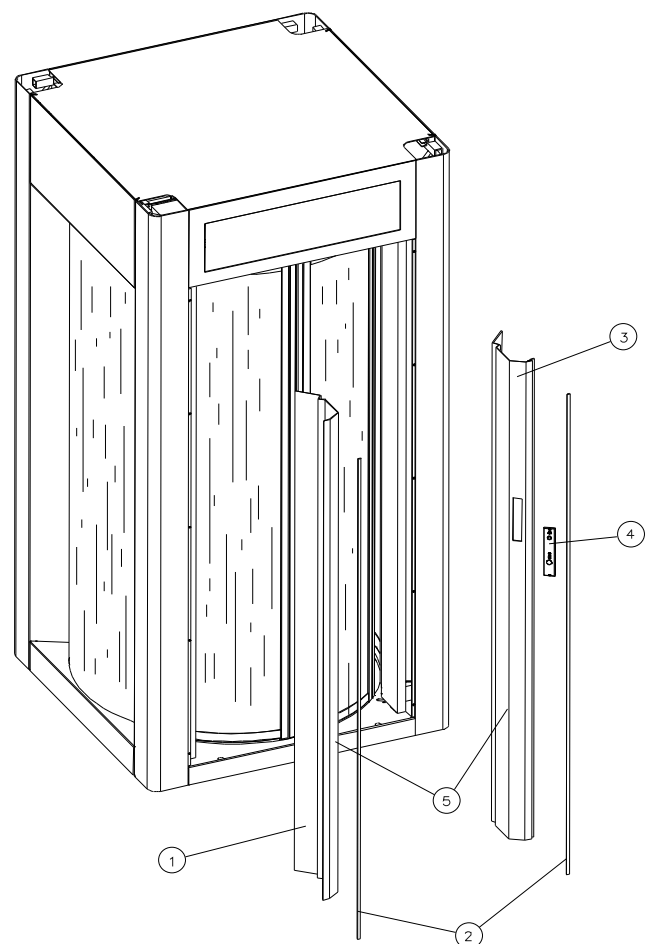
Internal

Components list table 06.

PARTICULARS.	Q.TY.	CODE.
1 - Unmarked panels.	1	**4103113**
2 - Magnets.	4	**4400267**
3 - Push button panel.	1	**410708874**
4 - Push button panel without intercom.	1	**5205307**
5 - Accident prevention photocells.	2 Pairs	**5204239**

Section design main view (II) 2 shutters

Table 07

Internal

External
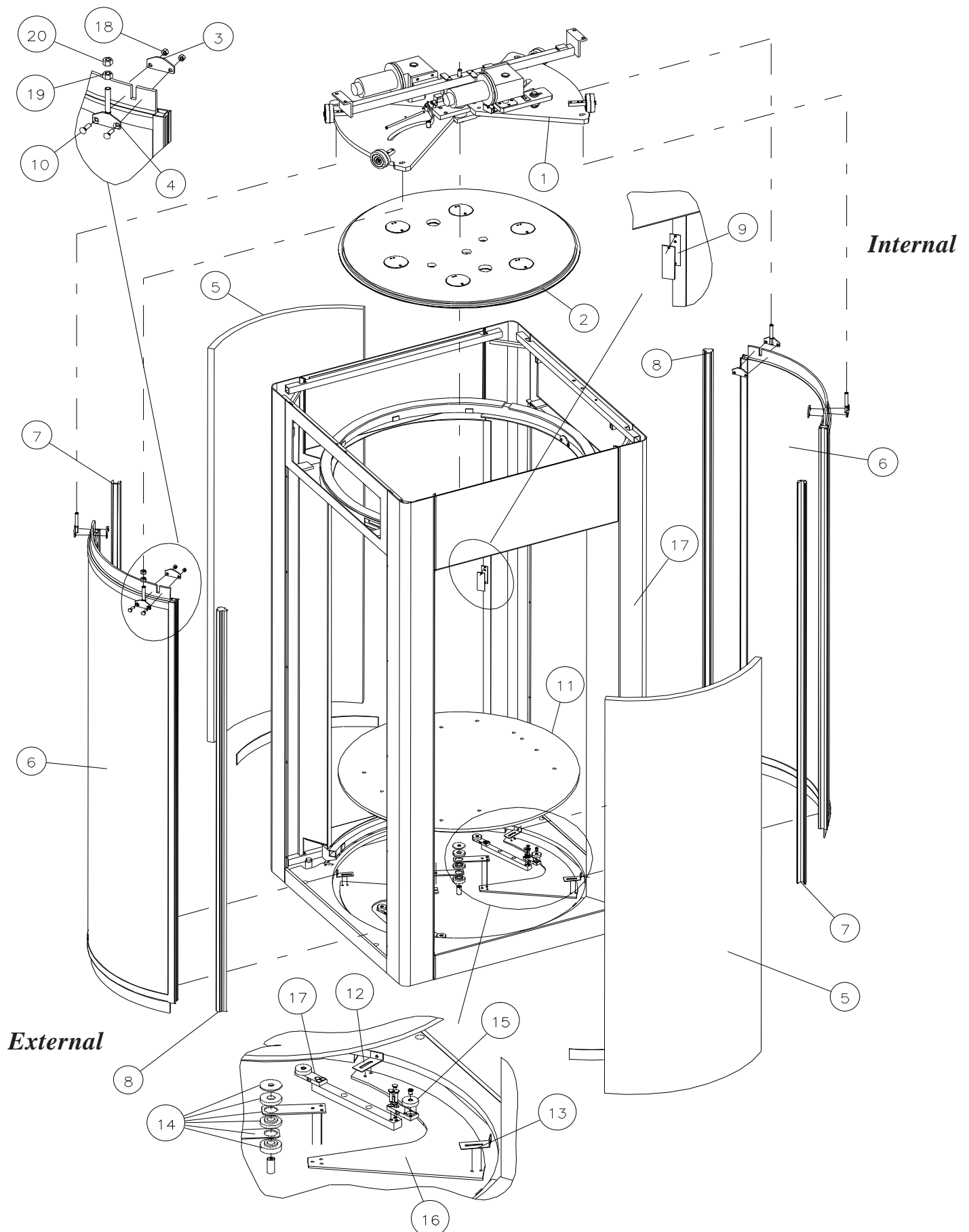
Components list table 07.

PARTICULARS.	Q.TY.	CODE.
1 - Booth trolley.	2	**440315733R1**
2 A -Booth ceiling with aerials.	1	**2207455**
2 B -Booth ceiling without aerials.	1	**2207456**
3 - Door coupling.	4	**350367733R1**
4 - Door attachment.	4	**4403156**
5A – Glass door.	0/1/2	**4203032**
5B – Blind wall.	0/1/2	**350770374**
6 - Assembled door.	2	**230716274**
7 - Door's female rubber side.	2	**430483450**
8 - Door's male rubber side.	2	**430483350**
9 - CE complete push button panel	1	**2207304**
10 - Hex. stainless steel countersunk screw M8 x 30.	8	
11 – Booth's central floor base.	1	**440455233R2**
12 - Door's lower attachment dx.	2	**350439939R1**
13 - Door's lower attachment sx.	2	**350440039R1**
14 - Door's lower arm attachment parts.	1	**2203375**
15 – Anti vibrations floor base support.	4	**5504363**
16- Door's lower arm.	2	**430483733R1**
17 – Complete parts kit.	1	**5007073**
18 – Stainless steel self locking bolt M8.	8	
19 – Stainless steel bolt M12.	4	
20 – Stainless steel self locking bolt M12.	4	

Section design main view (II) 4 shutters

Table 08

Internal

External
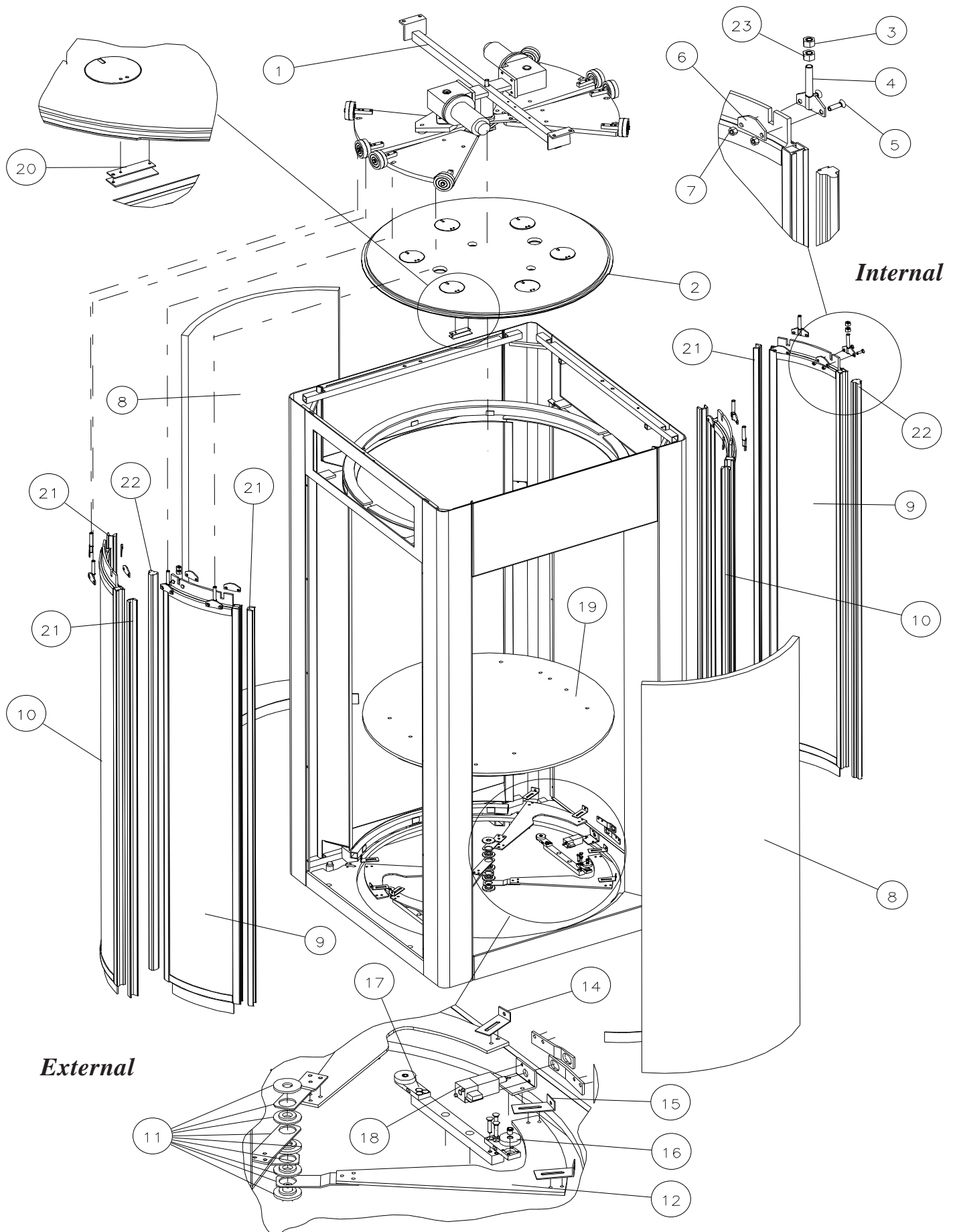
Components list table 08.

PARTICULARS.	Q.TY.	CODE.
1 - Motor reducer crossbar.	1	350409535R2
2 A -Booth ceiling with aerials.	1	2207473
2 B -Booth ceiling without aerials.	1	2207474
3 - Stainless steel self locking bolt M12.	8	
4 - Door attachment.	8	4403156
5 - Hex. stainless steel countersunk screw M8 x 30.	16	
6 - Door coupling.	8	350367733R1
7 - Stainless steel self locking bolt M8.	16	
8A - Glass door.	0/1/2	4203032
8B - Blind wall.	0/1/2	350770374
9 - Assembled door dx.	2	230509335
10 - Assembled door sx.	2	230509435
11 - Door's lower arm attachment parts.	1	2204097
12- Door's lower arm.	4	430486935R1
14 - Door's lower attachment dx.	4	350439939R1
15 - Door's lower attachment sx.	4	350440039R1
16 - Anti vibrations floor base support.	4	5504363
17 - Complete parts kit.	1	5007073
18 - Electro piston door block.	1	5104732
19 - Booth's central floor base.	1	440455233R2
20 - CE complete push button panel.	1	2207304
21 - Door's female rubber side.	6	430483450
22 - Door's male rubber side.	2	430483350
23 - Stainless steel bolt M12.	8	

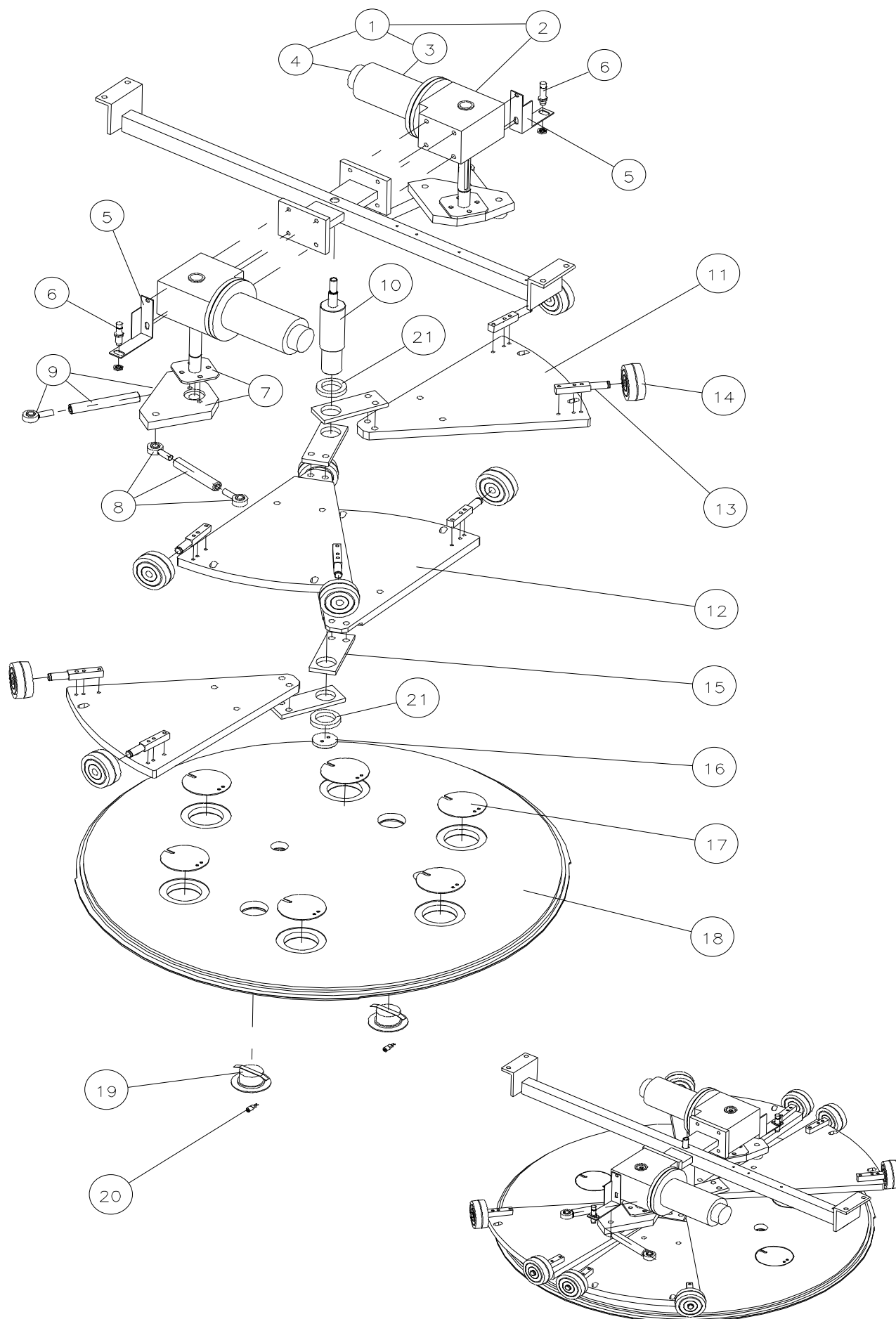# Mechanical movement 2 shutters

Table 09
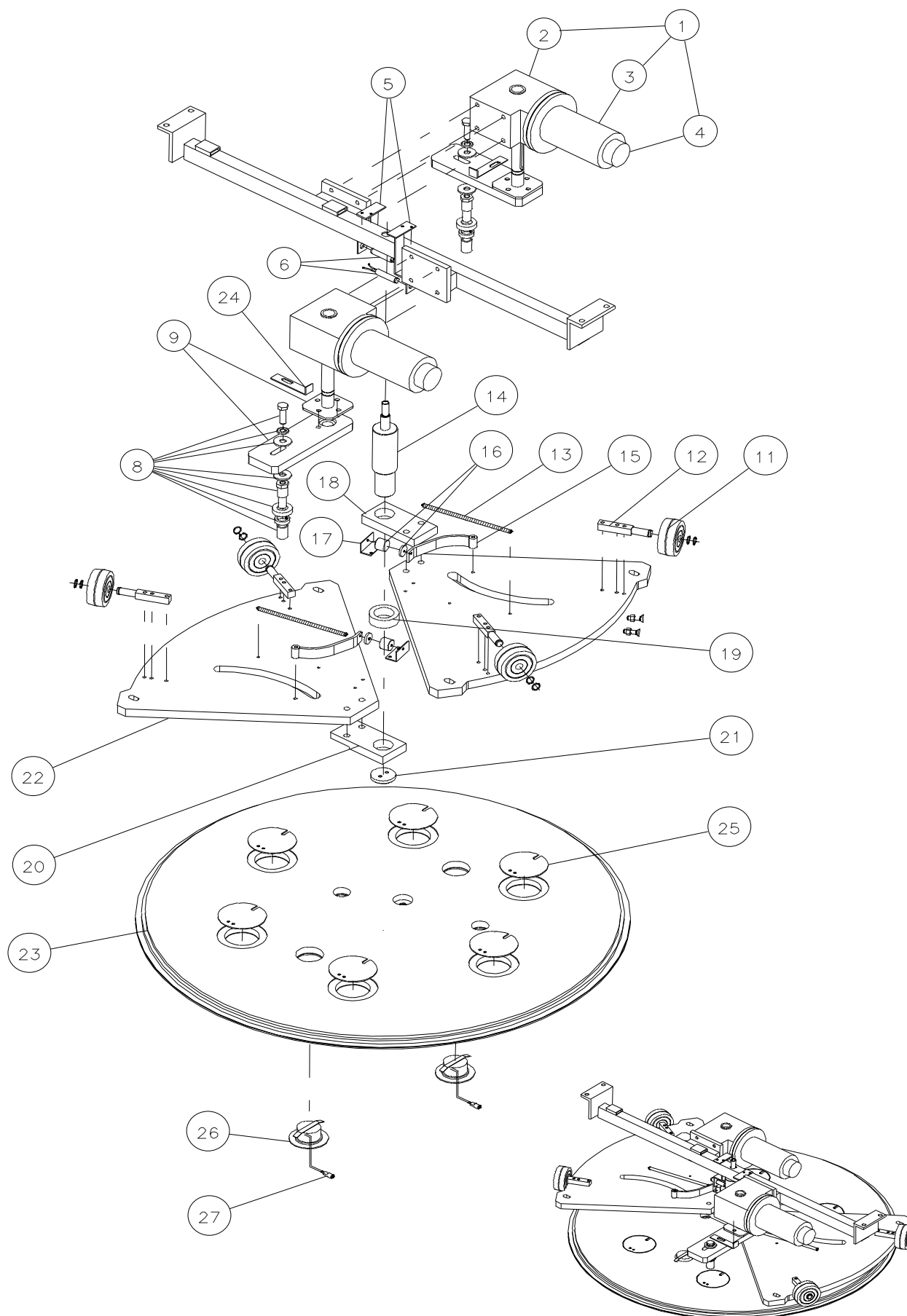
Components list table 09.

PARTICULARS.	Q.TY.	CODE.
1 - Motor reducer parts.	2	**5105903**
2 - Reducer.	2	**5005904**
3 - Motor.	2	**5105226**
4 - Encoder.	2	**5206032**
5 - Proximity sensor support.	2	**350471633**
6 - Proximity Sensor.	2	**5092PNO**
8 - Pin parts to move carrier.	2	**220766764**
9 - Motor reducer connecting rod parts.	2	**220766864**
11 – Carrier wheel.	4	**50411780**
12 – Carrier's wheel pin.	4	**440317450R2**
13 – Unblocking door spring.	2	**4402653**
14 – Main carrier hub.	1	**3503799**
15 – Unblocking door leaver.	2	**350354333R1**
16 – Electromagnet stabilizer.	2	**5105867**
17 – Small reading square attachment for the electromagnet stabilizer.	2	**4402633**
18 – External cabin attachment plate.	1	**4402587**
19 – Top hub spacer ring.	1	**4302623**
20 - Internal cabin attachment plate.	1	**4402588**
21.- Main carrier hub washer.	1	**4303173**
22 - Booth carrier.	2	**430315733R1**
23 A -Booth ceiling with aerials.	1	**2207455**
23 B -Booth ceiling without aerials.	1	**2207456**
24 - Small reading square near the connecting rod.	2	**3503355**
25 – SUN microwave aerial.	6	**2203538**
26 – Flash Light.	2	**5801285**
27 – Flash light light bulb.	2	**50912V10W**

Mechanical movement 4 shutters

Table 10

Components list table 10.

PARTICULARS.	Q.TY.	CODE.
1 - Motor reducer parts.	2	5105903
2 - Reducer.	2	5005904
3 - Motor.	2	5105226
4 - Encoder.	2	5206032
5 - Proximity sensor support.	2	350471139R1
6 - Proximity Sensor.	2	5092PNO
7 - Motor reducer connecting rod parts.	2	220794280
8 - Short connecting rod with joints.	2	220795180
9 - Long connecting rod with joints.	2	220794380
10 – Main carrier hub.	1	3503799
11 – Door carrier dx.	2	440375835R1
12 – Door carrier sx.	2	440375935R1
13 – Carrier's wheel pin.	8	440317450R2
14 – Carrier wheel.	8	50411780
15 - Carrier attachment plate.	4	4404099
16.- Main carrier hub washer	1	4303173
17 – SUN microwave aerial	6	2203538
18 A -Booth ceiling with aerials.	1	2207473
18 B -Booth ceiling without aerials.	1	2207474
19 – Flash Light.	2	5801285
20 – Flash light-light bulb.	2	50912V10W
21 – Main carrier hub washer.	2	430509535

II - Electronic main board.

B

A

Rearma-ment

OFF ON

INT. Motor — *1*

EXT. Motor — *2*

Inputs power supply — *7*

SAIMA

OUTPUTS

21

Batteries — *3*

5 — INT.
4 — EXT. Magnet

Main light

6

Metal Detector

8

LED4
LED3 TEST
LED2
LED1

24

INT. Proximity switch — *10*

EXT. Proximity switch — *11*

INT. Photocells — *12*

EXT. Photocells — *13*

Unblock — *9*

INT. Encoder — *14*

EXT. Encoder — *15*

INT. EXT.

17 — Push button panels

18

Console 1

16 — Console 2

INPUTS
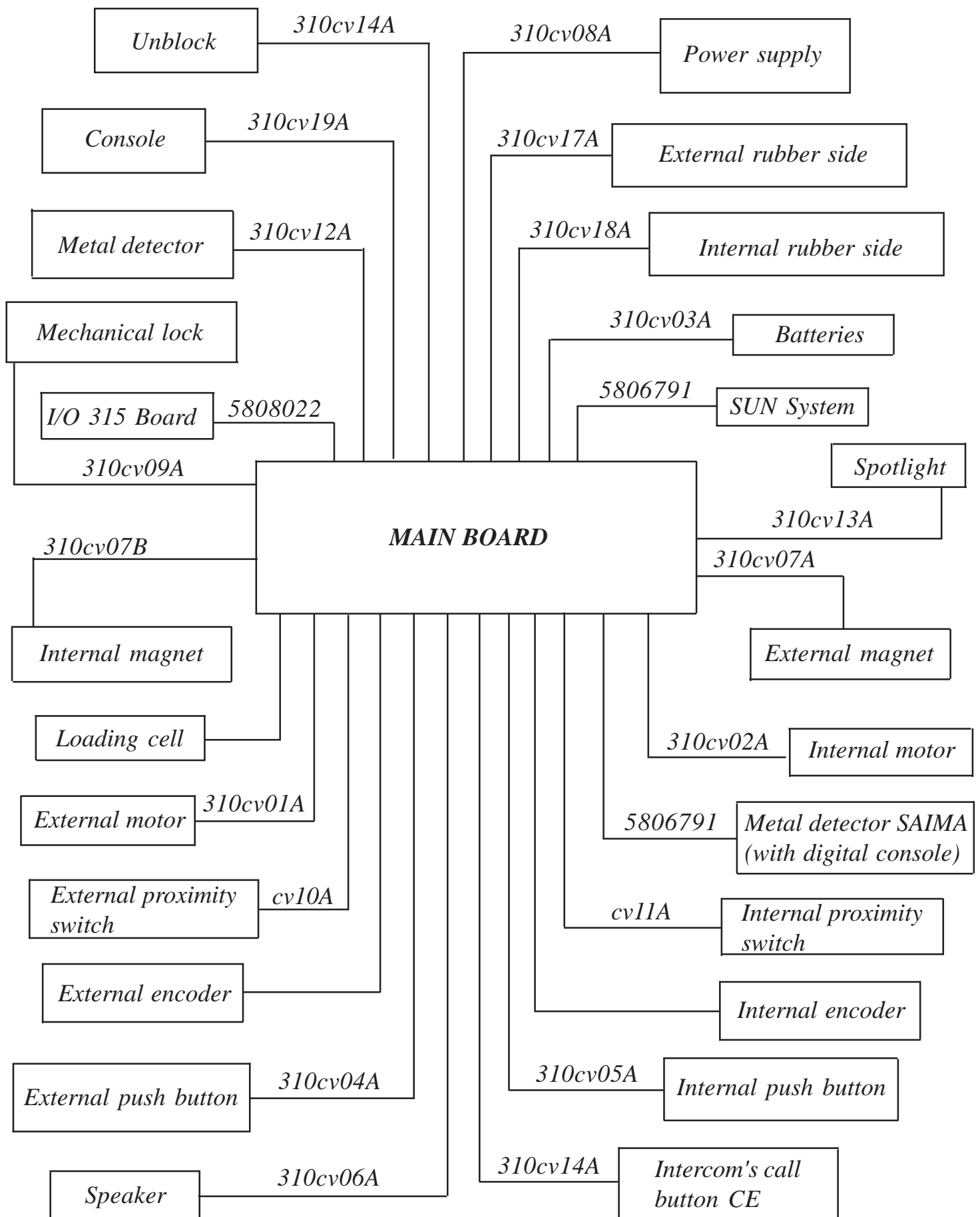
22 — Line 1

Loading cell
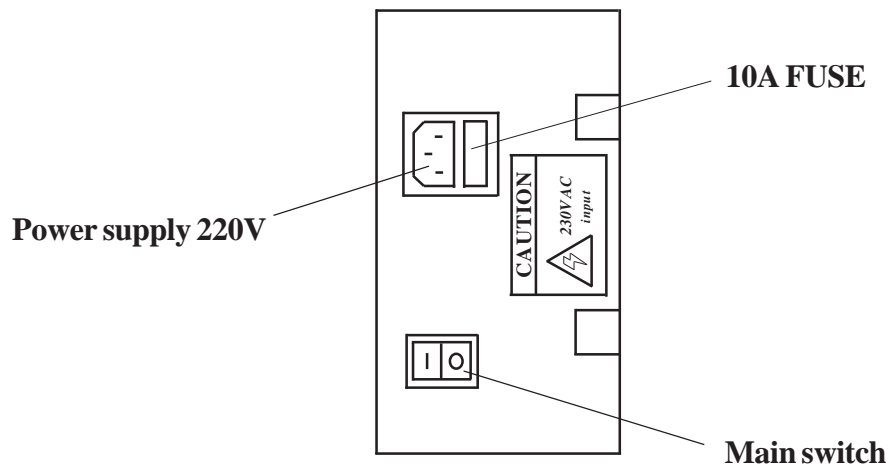
20

23 — Line 2

19

RS232

Connections to main board

A – Booth's ON/OFF switch.

B - Re-able switch with emergency batteries after discharging.

1 - Cable cv02A connection to the internal motor.

2 - Cable cv01A connection to the external motor.

3 - Cable cv03B connection to emergency batteries.

4 - Cable cv07B connection to the unblock magnet for the internal door emergency.

5 - Cable cv07A connection to the unblock magnet for the external door emergency.

6 - Cable cv06A connection to the voice message speaker.

    Cable cv13A connection to the spotlight.

    Cable cv14A connection to the intercom's call button (main push button panel) CE.

7 - Cable cv08A power connection.

8 - Cable cv12A connection to the metal detector's main board.

9 - Cable cv14A connection to the emergency button (main push button panel) CE.

10 – Cable cv11A connection to the internal proximeter.

11 – Cable cv10A connection to the external proximeter.

12 – Cable cv17A connection to the door's external rubber side contact.

13 – Cable cv18A connection to the internal rubber side and main board power contact.

14 – Connection with encoder cable to internal encoder.

15 – Connection with encoder cable to external encoder.

16– Cable cv19A connection to the console.

17 – Cable cv05A connection to the internal push button panel.

18 – Cable cv04A connection to the external push button panel.

19 – Connection with loading cell cable to loading cell.

20 – Input connections:

    - clamps 1 and 3 activating bridge.

    - clamps 11 and 12 cable cv09A connection to mechanical lock.

    - clamps 15 and 20 first entrance bridge.

21 – Exit connections.

22- Cable 5806791 connection to the SUN system (only booth's with Sun system).

23 - Cable 5806791 connection to the SAIMA metal detector with digital console.
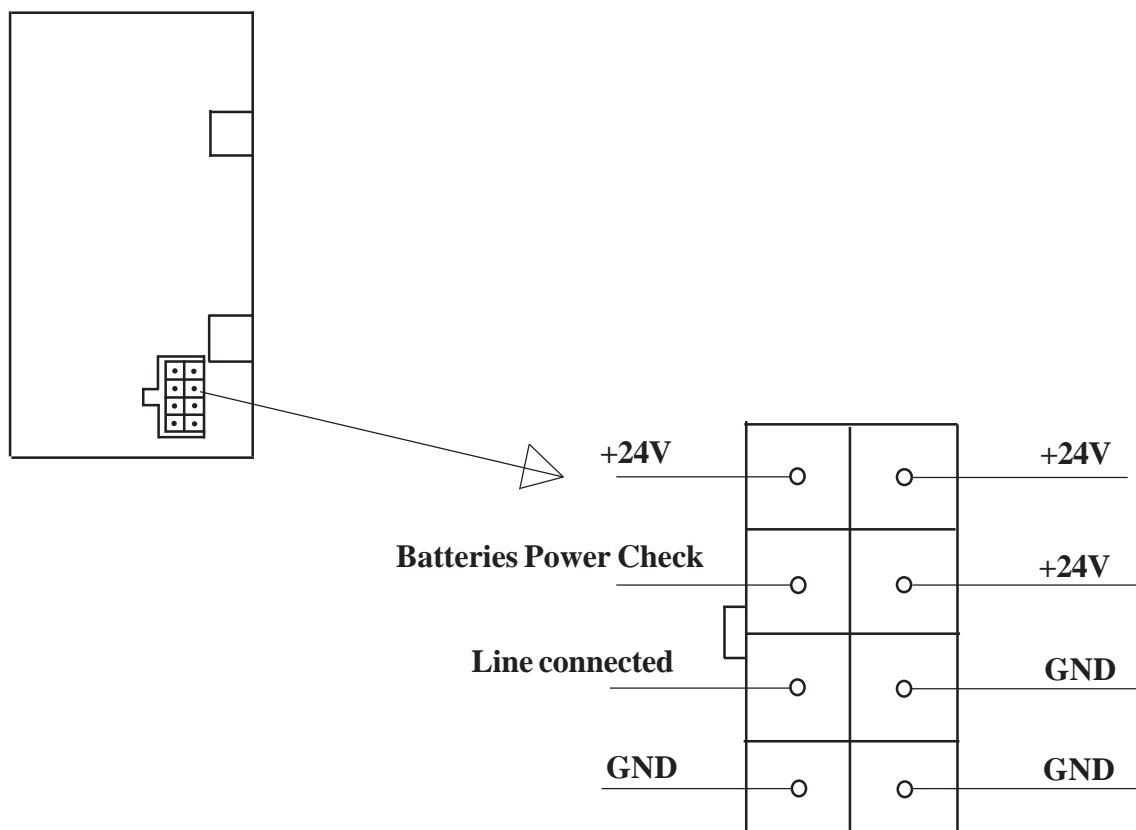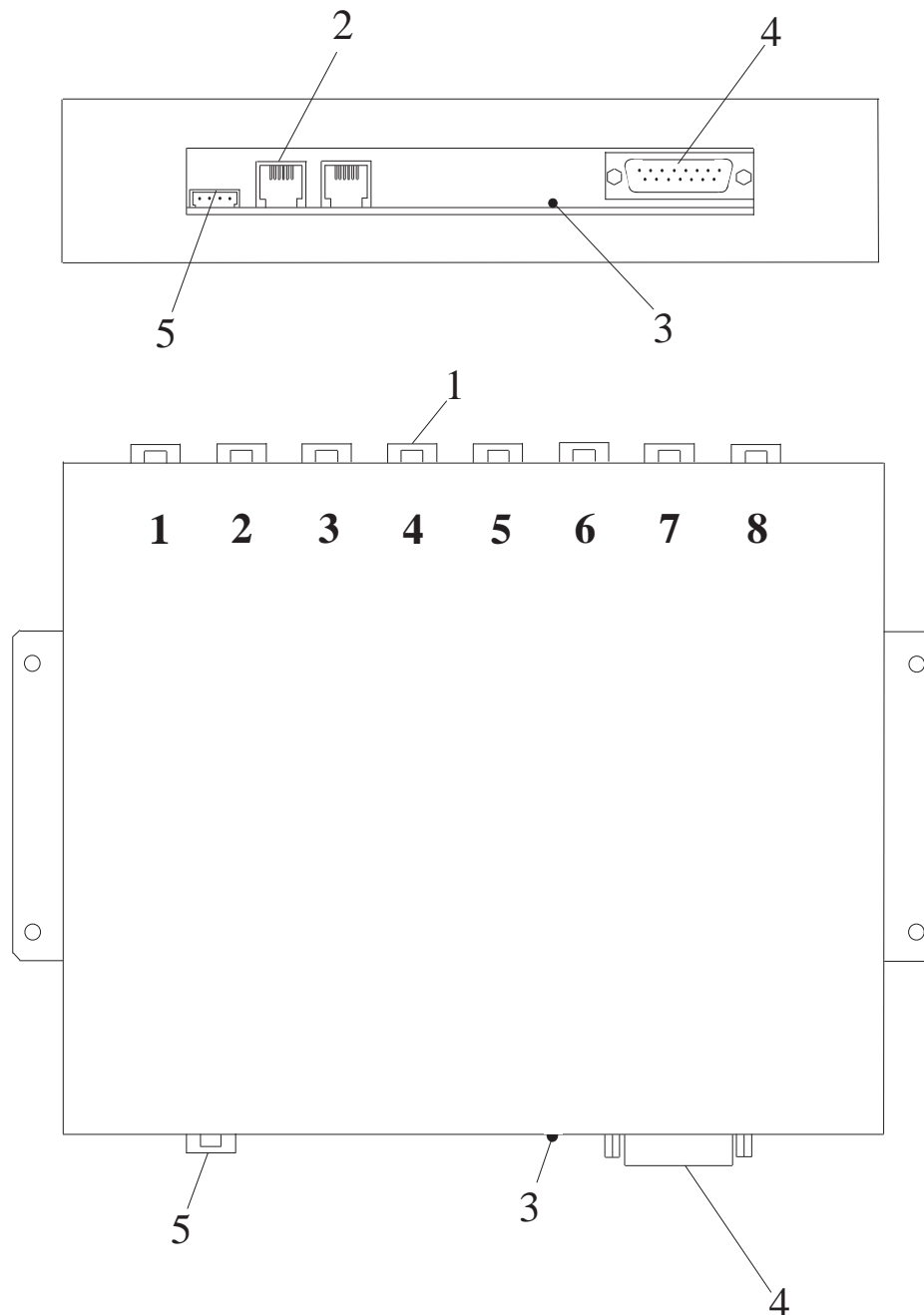
24- Auto diagnostic led.

Block diagram

Unblock	310cv14A
Console	310cv19A
Metal detector	310cv12A
Mechanical lock	
I/O 315 Board	5808022
	310cv09A

310cv08A — Power supply

310cv17A — External rubber side

310cv18A — Internal rubber side

310cv03A — Batteries

5806791 — SUN System

Spotlight

MAIN BOARD

310cv13A

310cv07B

310cv07A — External magnet

Internal magnet

Loading cell

External motor — 310cv01A

External proximity switch — cv10A

External encoder

External push button — 310cv04A

Speaker — 310cv06A

310cv02A — Internal motor

5806791 — Metal detector SAIMA (with digital console)

cv11A — Internal proximity switch

Internal encoder

310cv05A — Internal push button

310cv14A — Intercom's call button CE

26

Power Supply

Back view

		10A FUSE

CAUTION ⚡ **230VAC input**

Power supply 220V

Main switch

Side back view

+24V	+24V
Batteries Power Check	+24V
Line connected	**GND**
GND	**GND**

27

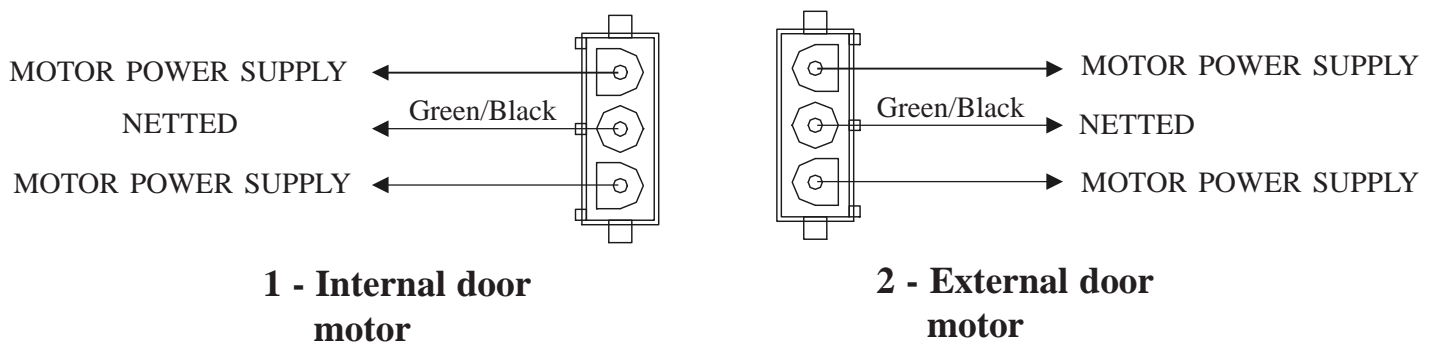# SUN aerial main board management

1 - SUN aerial connectors.

2 - Sun main board connector plugs.

3 - SUN system functioning led (if the led flashes at a frequency of 1 second the system is working properly, if the frequency is less than a second it means there is a malfunction in the system.)
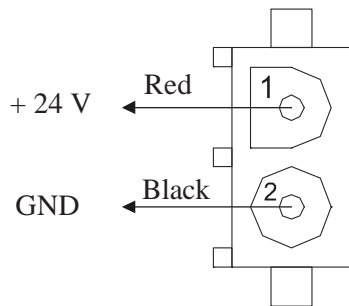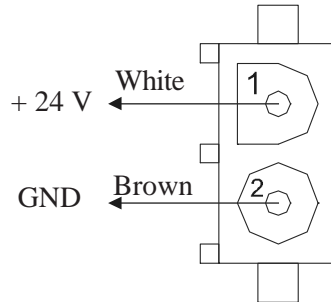
4 - 5 - Not used.

Connections (main board)

Motors

MOTOR POWER SUPPLY ←   → MOTOR POWER SUPPLY

NETTED ←   Green/Black   → NETTED

MOTOR POWER SUPPLY ←   → MOTOR POWER SUPPLY

Green/Black

1 - Internal door motor   **2 - External door motor**

Cable/colour motor connection chart

MOTOR BOOTH	*INTERNAL*	*EXTERNAL*
MIDDLE	*1 BROWN* *3 WHITE*	*1 BROWN* *3 WHITE*
LEFT	*1 BROWN* *3 WHITE*	*1 WHITE* *3 BROWN*
RIGHT	*1 BROWN* *3 WHITE*	*1 WHITE* *3 BROWN*
4 DOORS	*1 WHITE* *3 BROWN*	*1 WHITE* *3 BROWN*

3 - Batteries

+ 24 V ← Red — 1

GND ← Black — 2

4 - Int. magnet

+ 24 V ← White — 1

GND ← Brown — 2

5 - Ext. magnet

GND ← White — 1

+ 24 V ← Brown — 2

6 - Ceiling light

Green PORTER

GND ← White — 5

(INTER. BUTTON) V+ ← Red — 6

Yellow PORTER — 7

GND ← White — 8

White PORTER

1 — Black → LIGHT POWER SUPPLY

2 — Red → LIGHT POWER SUPPLY

3 — White → INTERCOM BUTTON

4 — Red → + SPEAKER

Brown PORTER

7 - Power supply

+ 24 V ← 5

BATTERY POWER CHECK ← 6

POWER PRESENCE ← 7

GND ← 8

1 → + 24 V

2 → + 24 V

3 → GND

4 → GND

8 - Metal Detector

+ 24 V → 1

CONTACT M.D. (NO) → 2

+ 12 V → 3

TX 232 → 4

RX 232 → 5

L I - → 6

L I + → 7

GND → 8

Power supply for emergency exit EMPLC1

9 - Unblock

CONTACT NO ← Yellow ← 2

GND ← Green ← 1

10 - 11 - Proximity switch

GND ← Blu ← 4

CONTACT ← Black ← 3

← 2

+ 24 V ← Brown ← 1

PNPNO 24V

INT.10

GND ← Blu ← 4

CONTACT ← Black ← 3

← 2

+ 24 V ← Brown ← 1

PNPNO 24V

EXT.11

12 - 13 - Accident prevention photocells

GND ← White ← 4

CONTACT NO ← Yellow ← 3

← 2

+ 24 V ← Red ← 1

INT.12

GND ← White ← 4

CONTACT NO ← Yellow ← 3

← 2

+ 24 V ← Red ← 1

EXT.13

14 - 15 - Encoders

GND ◄ — Black (2) — ○ 4
SIGNAL 1 ◄ — ○ 3
SIGNAL 2 ◄ — ○ 2
+ 5 V ◄ — Red — ○ 1

INT.14

GND ◄ — Black (2) — ○ 4
SIGNAL 1 ◄ — ○ 3
SIGNAL 2 ◄ — ○ 2
+ 5 V ◄ — Red — ○ 1

EXT.15

Cable/colour encoder connection chart

ENCODER BOOTH	*INTERNAL*	*EXTERNAL*
MIDDLE	3 GREEN 2 YELLOW	3 GREEN 2 YELLOW
LEFT	3 GREEN 2 YELLOW	3 YELLOW 2 GREEN
R IGHT	3 GREEN 2 YELLOW	3 YELLOW 2 GREEN
4 DOORS	3 YELLOW 2 GREEN	3 YELLOW 2 GREEN

16 - Main Console

17 - 18 - Push button panels

6	Light blue	→ GND
5	Green	→ Not con.
4	Yellow	→ Not con.
3	Orange	→
2	Red	→
1	White	→ + 12V

INT.17

6	Light blue	→ GND
5	Green	→ GND Microp.
4	Yellow	→ Microp.
3	Orange	→ CL
2	Red	→ DA
1	White	→ + 12V

EXT.18

19 - Loading cell

SENSE - ← 6
NETTED ← 7
8
9

1 → EXC +
2 → SENSE +
3 → OUT +
4 → OUT -
5 → EXC -
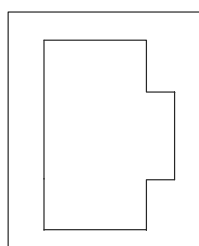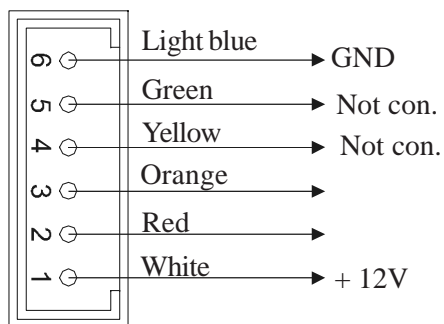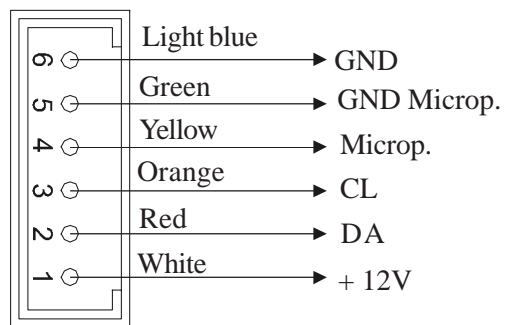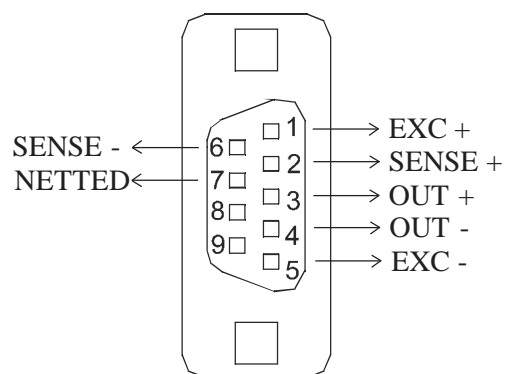
20 - Inputs

N°	NAME	ORDER
1	ING 6	TURN ON (Contact NC)
2	ING 7	Person Sensor
3	+ 24 V	TURN ON (Common)
4	GND	Not used
5	+ 12 V	Not used
6	+ 12 V EXT	Power photocoupler
7	ING 8	Rubber side opening
8	ING 9	Ext. unblocked
9	ING 10	Int. unblocked
10	ING 11	Escluded m.d. first passage
11	+ 24 V	Mechanical lock (contact C)
12	ING 0	Mechanical lock (contact NO)
13	ING 1	Input auxiliary metal alarm (also see metal connector)
14	+ 24 V	First entrance key (contact C)
15	ING 2	First entrance key (contact NC)
16	ING 3	Internal Radar (contact NO)
17	+ 24 V	Radar (Common)
18	ING 4	External radar (contact NO)
19	ING 5	Post Key (contact NC)
20	+ 24 V	Post Key (contact C)

INPUT CONNECTORS
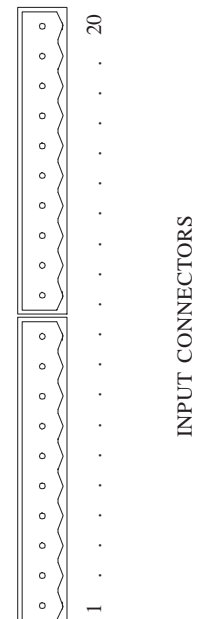
21 - Outputs

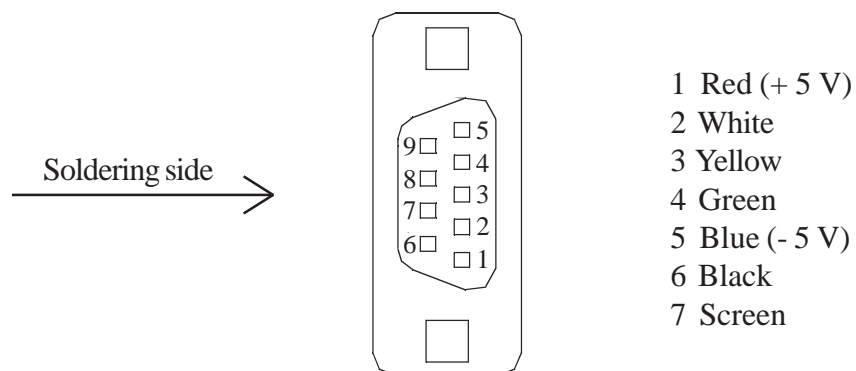| N°	NAME	PREDISPOSIZIONE
1	GND	Not used
2	OUT 8	Cycle TV camera
3	GND	Not used
4	OUT 7	un-able m.d. Ceia
5	GND	Not used
6	OUT 6	Person presence
7	GND	Not used
8	OUT 5	Night function
9	GND	Not used
10	+ 12 V OUT	Protected power supply 12 V (external use)
11	GND	Outside ground
12	OUT 3	Not used
13	GND	Not used
14	+ 24 V OUT	**Protected power supply 12 V** (external use)
15	GND	Outside ground
16	OUT 1	Not used

OUTPUT CONNECTORS
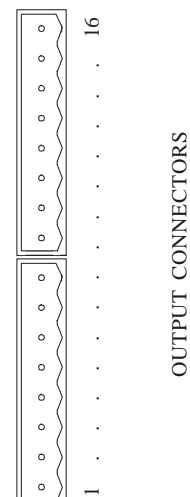
22 - Line 1 (SUN SYSTEM where used)
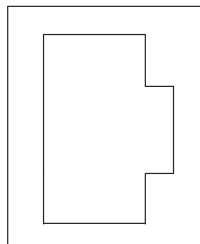
23 - Line 2 (SAIMA Metal Detector with digital console)
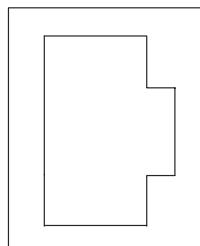
24 - Auto diagnostic led

LED CONDITION	MEAN
OLD 1 on	Encoder error
OLD 2 on	Weight error
OLD 1 e 2 on	One rubber side excluded
OLD 3 on	Micro position error
OLD 1 e 3 on	Encoder direction error

Weight system connection diagram

DB9 male connector for weight system connection:

Soldering side →

```
9□  □5
8□  □4
7□  □3
6□  □2
    □1
```

1 Red (+ 5 V)
2 White
3 Yellow
4 Green
5 Blue (- 5 V)
6 Black
7 Screen

Measures for proper functioning

Red
Blue
4 About KΩ

Yellow
Green
4 About KΩ

Red
Yellow
3 About KΩ

Red
Green
3 About KΩ

Photocell connection diagram

U1

+ 12V Alim — RED

- GND Alim — WHITE

+ 12V Test

- GND Test

1

Tx — TX INTERNAL

2

3

TX — TX EXTERNAL

4

1 — RX INTERNAL

Rx

2

3 — RX EXTERNAL

Rx

4

Nc1

Com1

No1 — JELLOW

Nc2

centralina prastel   Com 2

No2 — JELLOW

CV 17A

WHITE

CV 18A
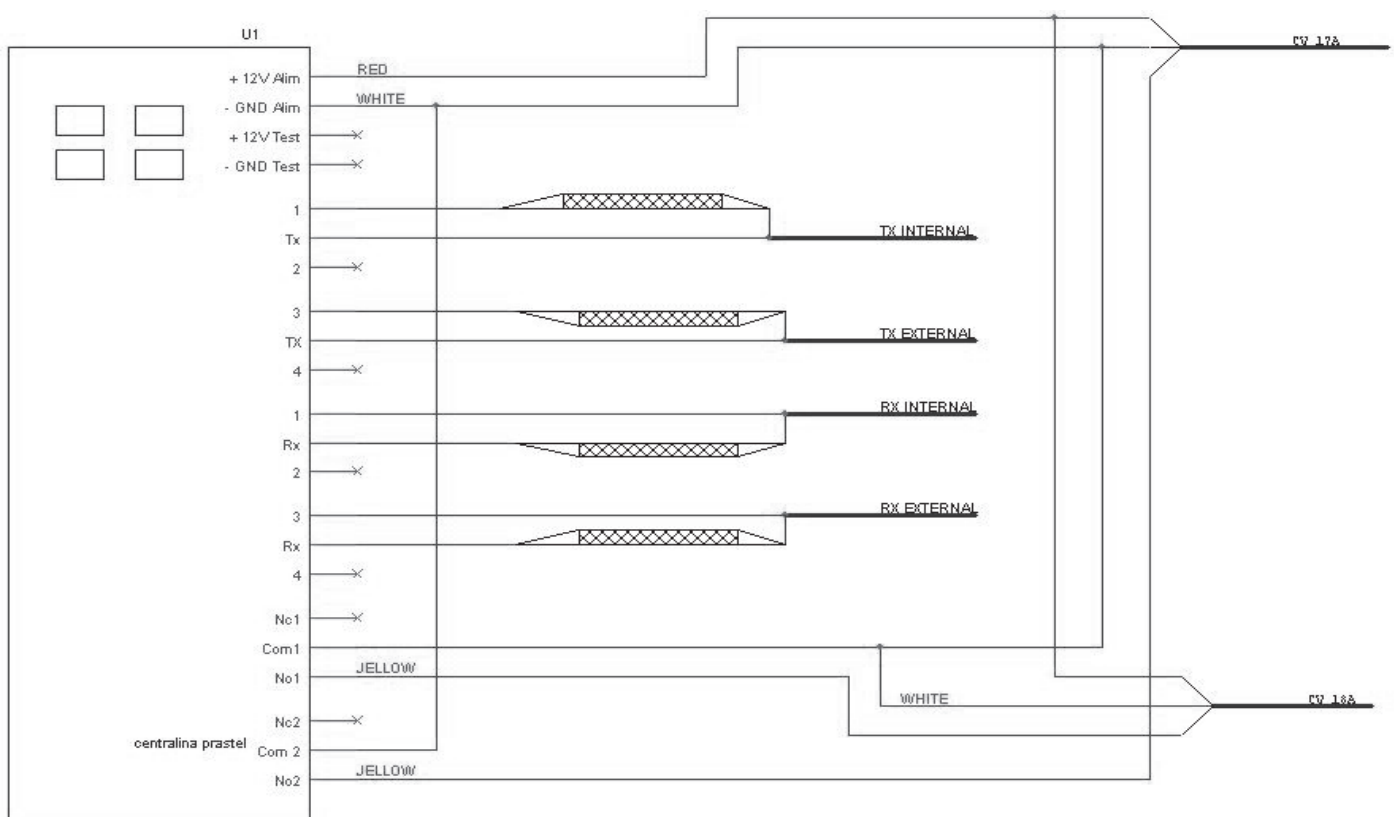
Auxiliary board I/O 315 connection diagram

315W001E

Pin	Signal		Pin	Signal
1			40	RL 01 Com
2			39	RL 01 Nc
3	Ent 7		38	RL 01 No
4	Ent 6		37	RL 02 Com
5	Unblock doors		36	RL 02 Nc
6	Emergency		35	RL 02 No
7	Open external manually		34	RL 03 Com
8	Open internal manually		33	RL 03 Nc
9	Transit not allowed		32	RL 03 No
10	transit allowed		31	RL 04 Com
11	L-		30	RL 04 Nc
12	L+		29	RL 04 No
13	GND		28	RL 05 Com
14	+12 IN		27	RL 05 Nc
15	GND		26	RL 05 No
16	GND		25	RL 06 Com
17	RL 08 No		24	RL 06 Nc
18	RL 08 Nc		23	RL 06 No
19	RL 08 Com		22	RL 07 Com
20	RL 07 No		21	RL 07 Nc

epcom

{Value}

+12 IN L- L+ GND

1 2 3 4 5 6 7 8

Singleboard metal connector

RL 01 ENTRANCE TRANSIT VALIDATION

RL 02 EXIT TRANSIT VALIDATION

RL 03 BOOTH CONTACT IN EMERGENCY

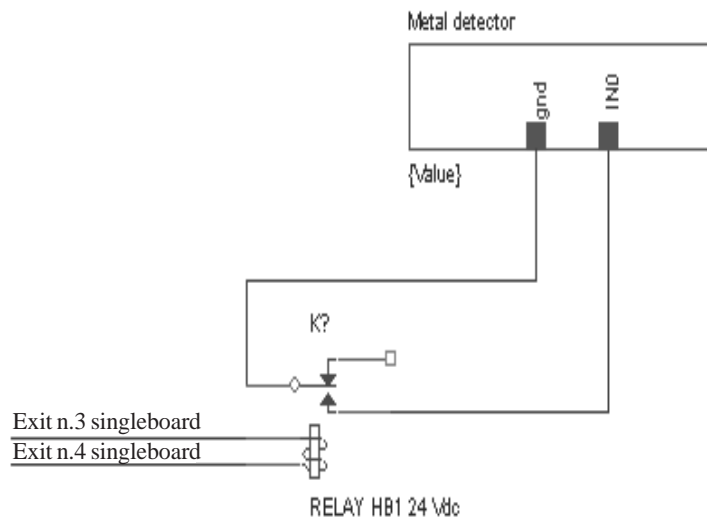RL 04 CONDITION CONTACT INTERNAL DOOR

RL 05 CONDITION CONTACT EXTERNAL DOOR

RL 06 ECCESSIVE WEIGHT SIGNAL

RL 07 INTERCOM SIGNAL

Metal Detector CEIA cut off diagram

Metal detector

gnd

IND

{Value}

K?

Exit n.3 singleboard

Exit n.4 singleboard

RELAY HB1 24 Vdc

III - PROGRAMMING AND ANALYSIS

Testing for bad or broken booth components and changes to the parameters different from those set by the factory, must be made with the "Power Console" software available on request from Saima Sicurezza.

The "Power Console" program has been created to manage the Saima booth functions, of the "Single board type.

This program works only with a hardware key. Should you need one, please contact Saima technical assistance service.

This program communicates with the booth using a serial door on the PC through a RS232/RS485 converter.

In order to work the software needs the following kit:
- RS232/RS485 converter.
- converter cable DB9 female, DB9 male.
- interface cable converter/logic 8 prong plug.
- programming cable with button.
- hardware key.

The minimum required to install is:
- Windows 2000 Professional.
- RAM 128 Mb.
- 100 Mb of free space on the hard disk.

Installing the "Power Console" program.
Click on "hdd32.exe" and choose typical installation. This will install the driver for the hardware key.
2 Install "Power Console".

ATTENTION: If a system error called "ENCODER ERROR" appears on the input status screen, while opening the program, this could mean that:
- The power supply of the motors is inverted.
- Counting of the encoder rotation stage is inverted.
- Some type of hindrance prevents the doors to move toward the closed position.
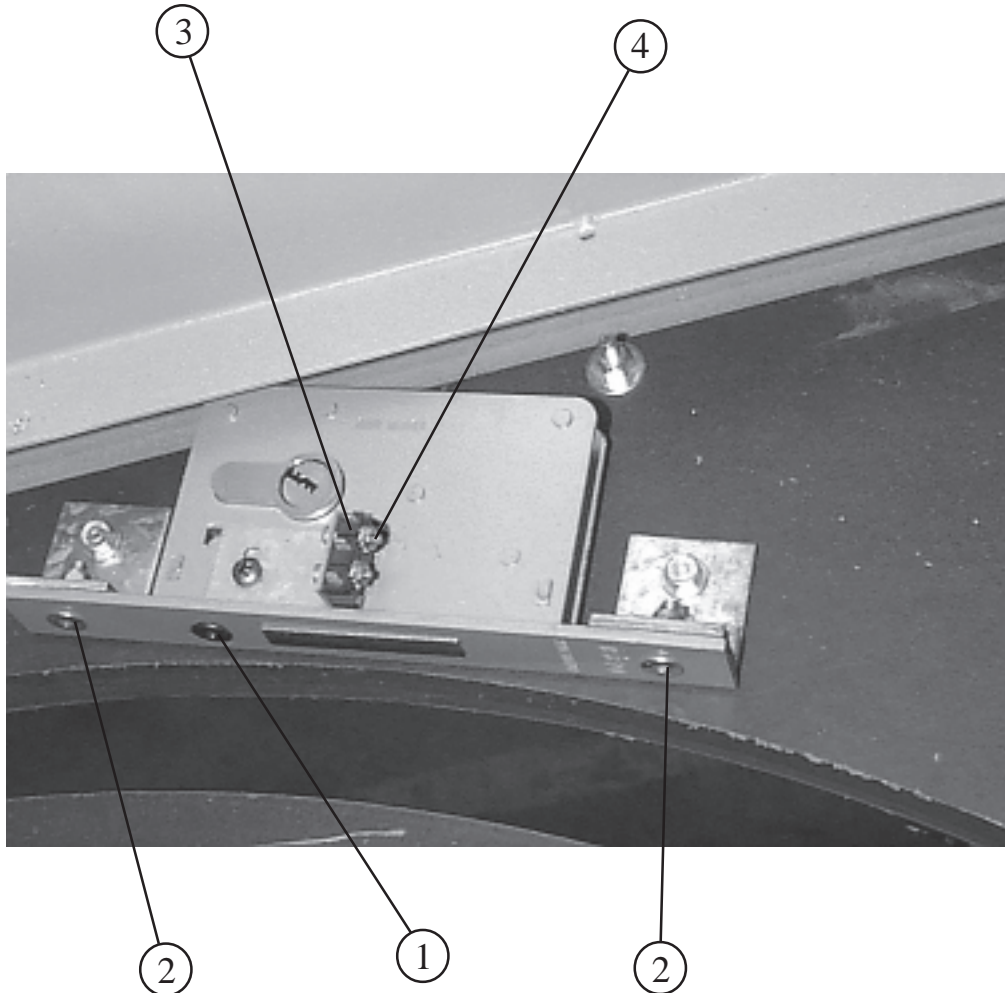
For instructions on how to use the "Power Console" software, you can request the handbook by calling Saima technical assistance service.
For Metal Detector maintenance or to change the parameters set by Saima you must request the operating manual or contact Saima assistance service.

IV - CHANGING COMPONENTS

<u>Lock</u>

WARNING : Turn off the booth before you do any maintenance using the single board's ON/OFF switch and open the door manually.

SUBSTITUTING THE CYLINDER

1. Untighten the screw (1).
2. Being a security cylinder rotate the key from its position only a few degrees just enough to allow the cylinder to come out.
3. Take out the cylinder.

SUBSTITUTING THE MECHANICAL LOCK

1. Untighten the screw (1).
2. Remove the cylinder as described on top.
3. Unscrew the screws (2).
4. Remove the mechanical lock.

SUBSTITUTING THE MICROSWITCH

1. Untighten the screw (4).
2. Remove the micro switch (3) and substitute.
3. Screw in making sure not to damage the micro Switch.
4. Activate the lock with the key to verify that the micro switch is working.
5. If the lock does not work properly un-tighten the screws (4) and change the micro switch's inclination.

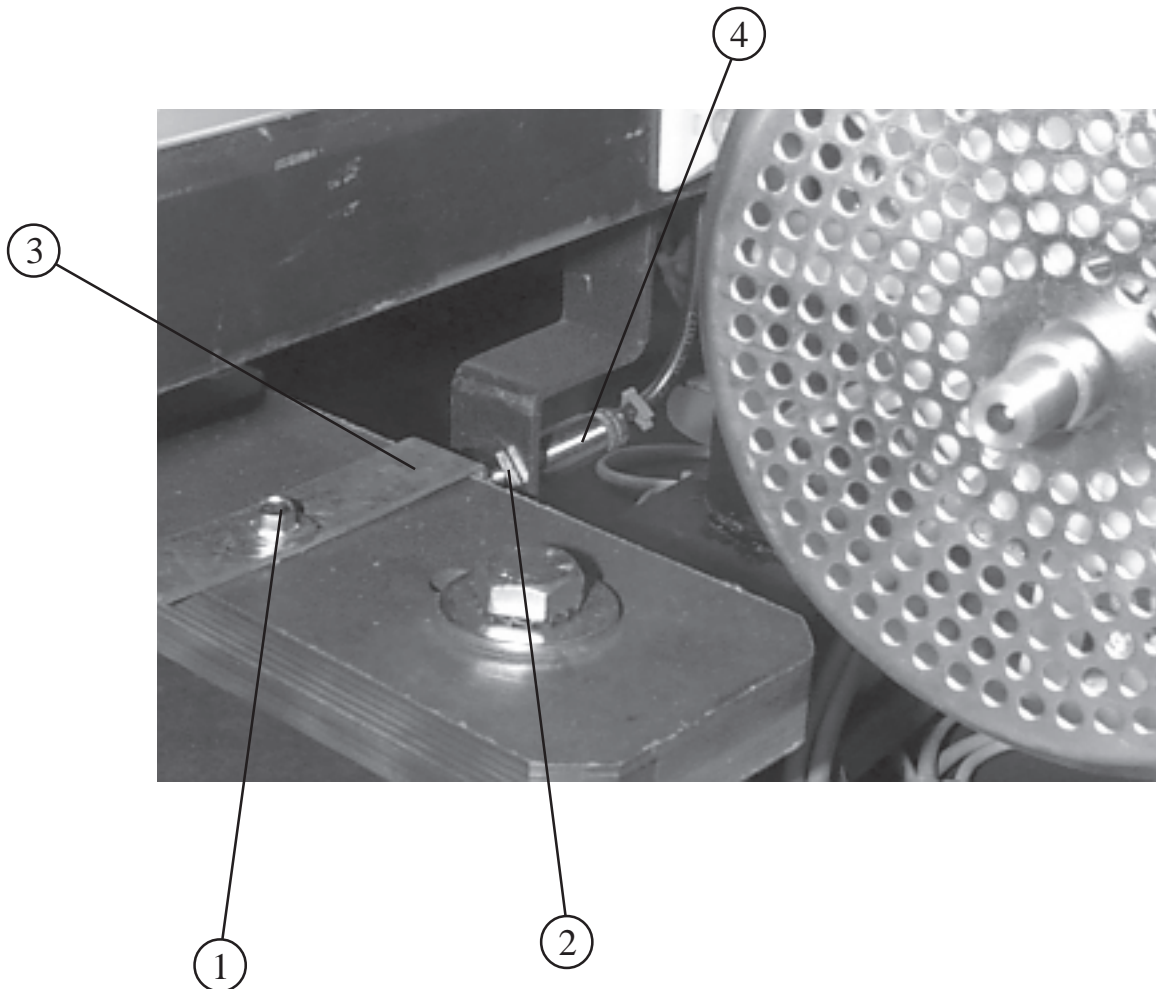# Emergency unblock magnet (2 shutters)
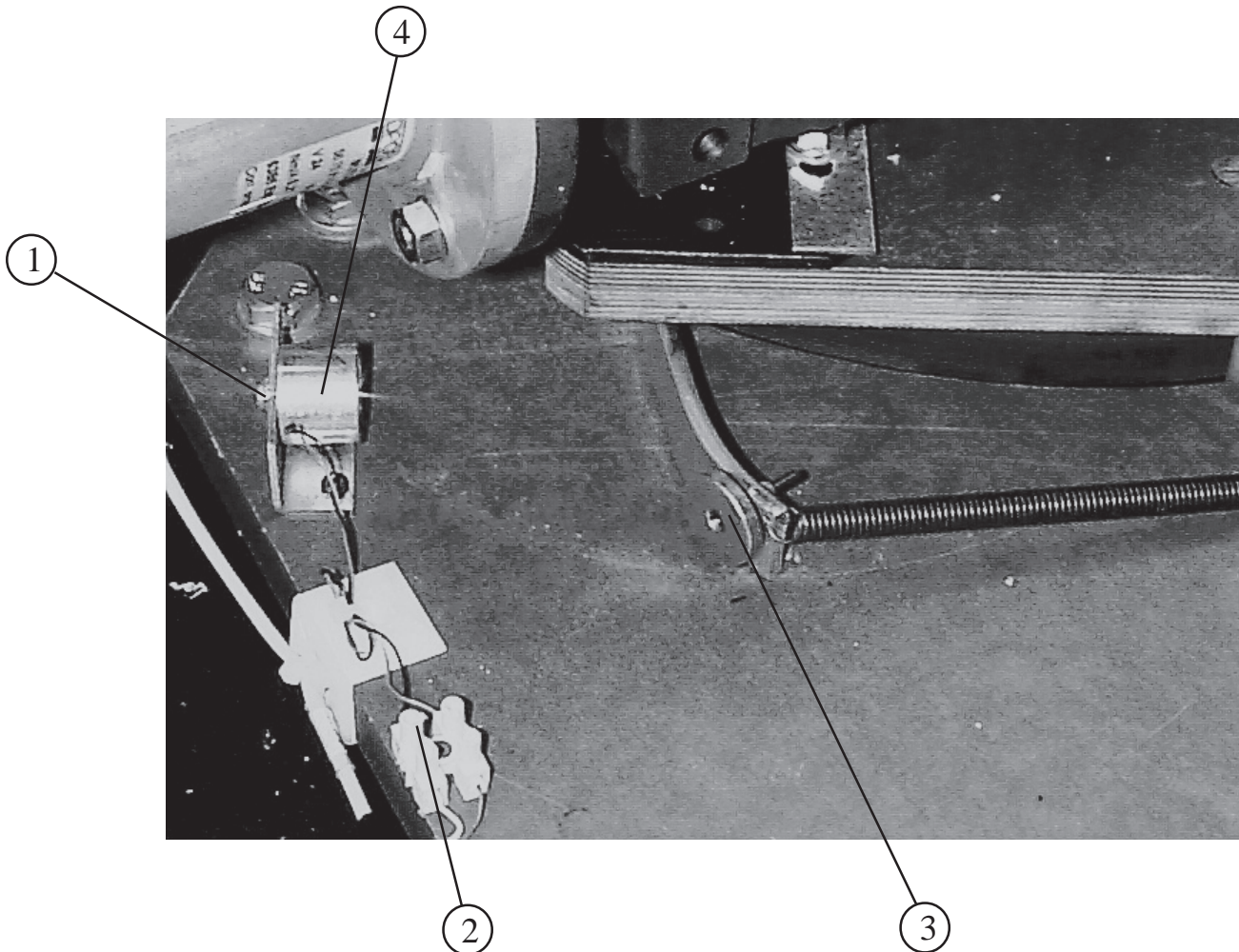
WARNING : Turn off the booth before you do any maintenance using the single board's ON/OFF switch and open the door manually.

SUBSTITUTING THE MAGNET

1. Disconnect the cables from the clamp (2).
2. Remove the screw holding the magnet (4) with your hand.
3. Replace with a new magnet.

N.B. : the magnet (4) is in the correct position when it is perfectly aligned. and in contact with the plate (3) when the door is closed.

Motor reducer connecting rod
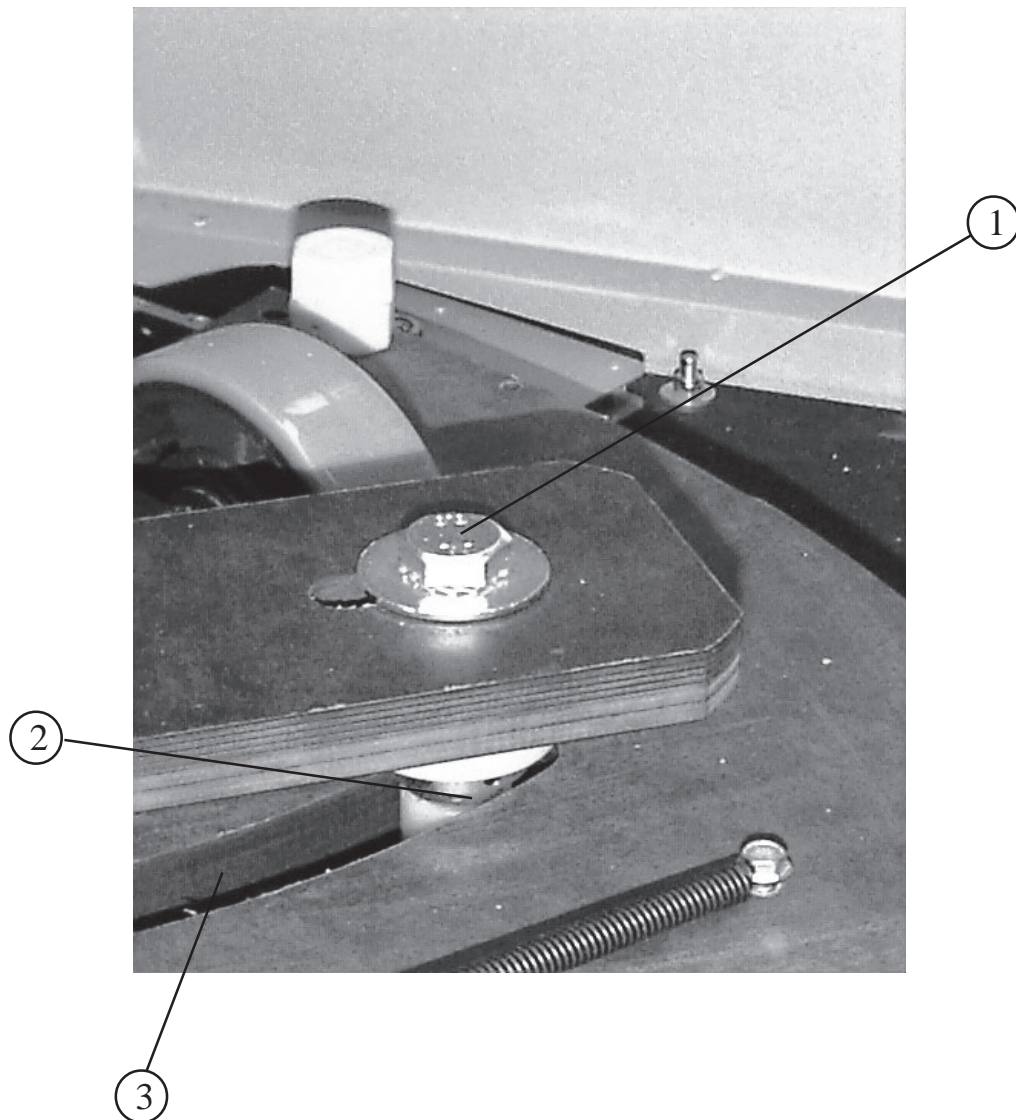
**WARNING: Turn off the booth before you do any maintenance
using the single board's ON/OFF switch and open the door manually.**

ADJUSTING THE DOOR'S CLOSING POINT

Un-tighten the bolt (1) and move the pin (2) in the door's frame (3) until it closes properly.

WARNING: After adjusting tighten the bolt (1) to it's maximum torque
(about 90 Nm).

Proximity Sensor

**WARNING: Turn off the booth before you do any maintenance
using the single board's ON/OFF switch and open the door manually.**

PROXIMITY SENSOR ADJUSTMENT

1. Loosen the bolt (2) and counter bolt.
2. Ad just the proximity sensor (4) to the reading clamp (3) leaving a space of about
   1-2 mm with the door in closed position.
3. Verify that the proximity sensor's head is perpendicular to the reading clamp (3).

If the reading staff is not perpendicular to the proximity sensor:
1. Loosen the bolt (1).
2. Adjust the reading clamp.
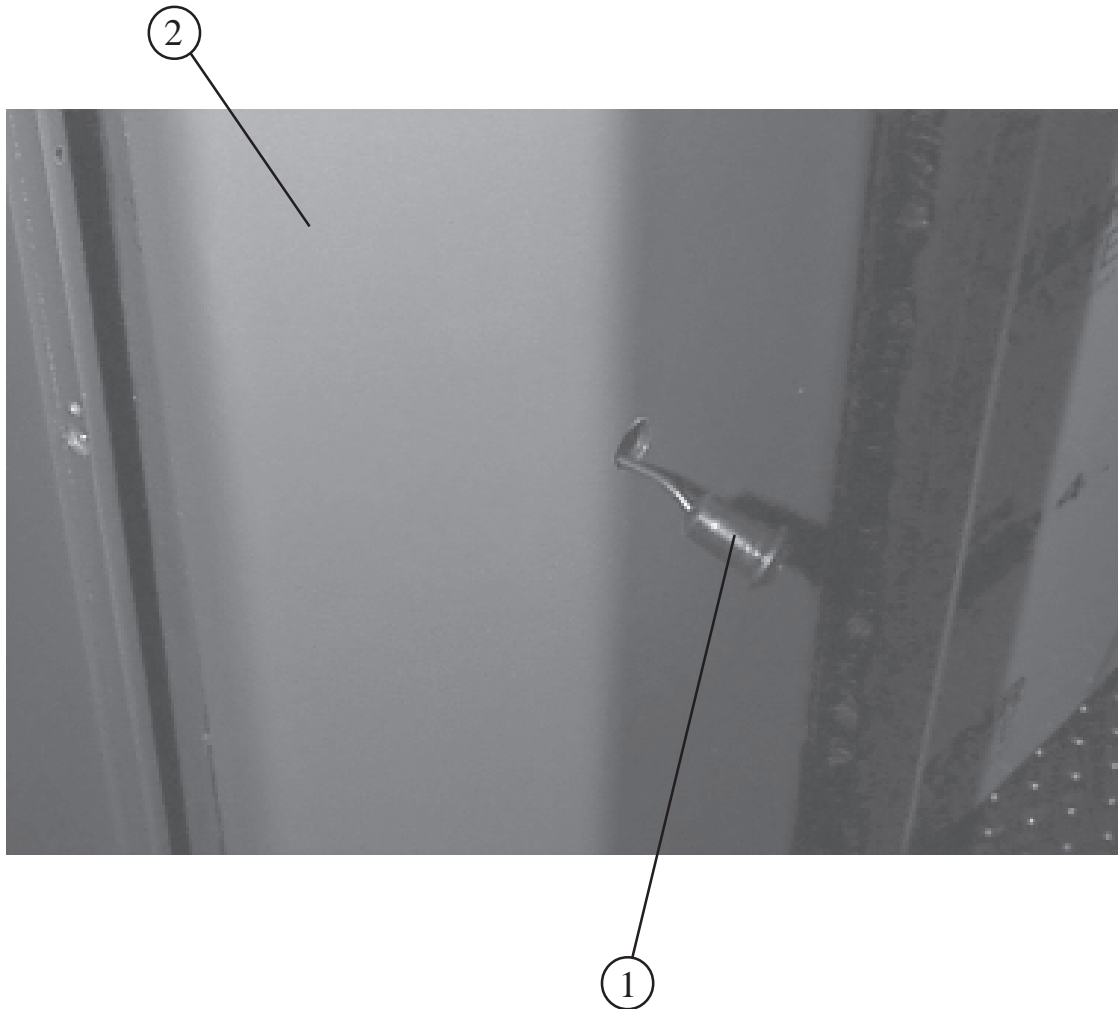3. Tighten the bolt (1).

Entrance panel edge
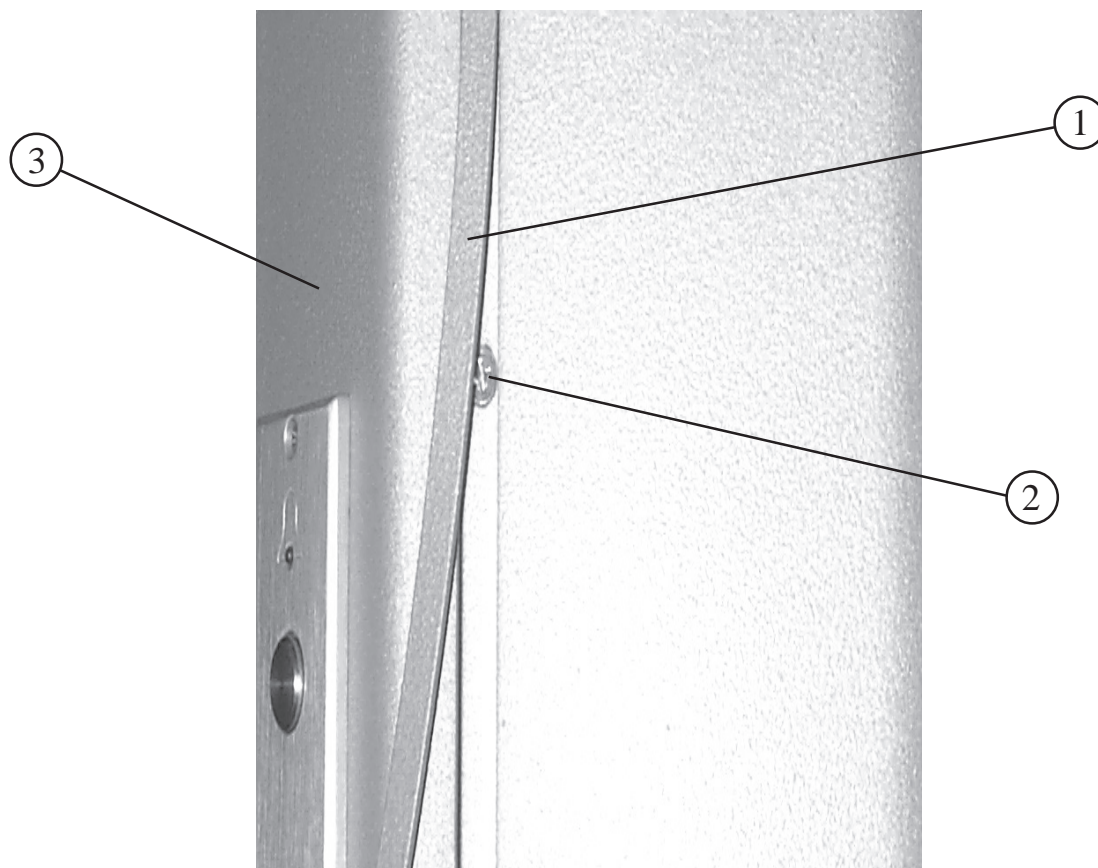
**WARNING: Turn off the booth before you do any maintenance
using the single board's ON/OFF switch and open the door manually.**

DISSEMBLING THE PANEL

1. Remove the magnetic strip (1) starting from its end.
2. Un-tighten and remove screws (2).
3. To remove the panel (3) apply pressure.

While re-assembling the panel, make sure that its internal part is inserted in the booth
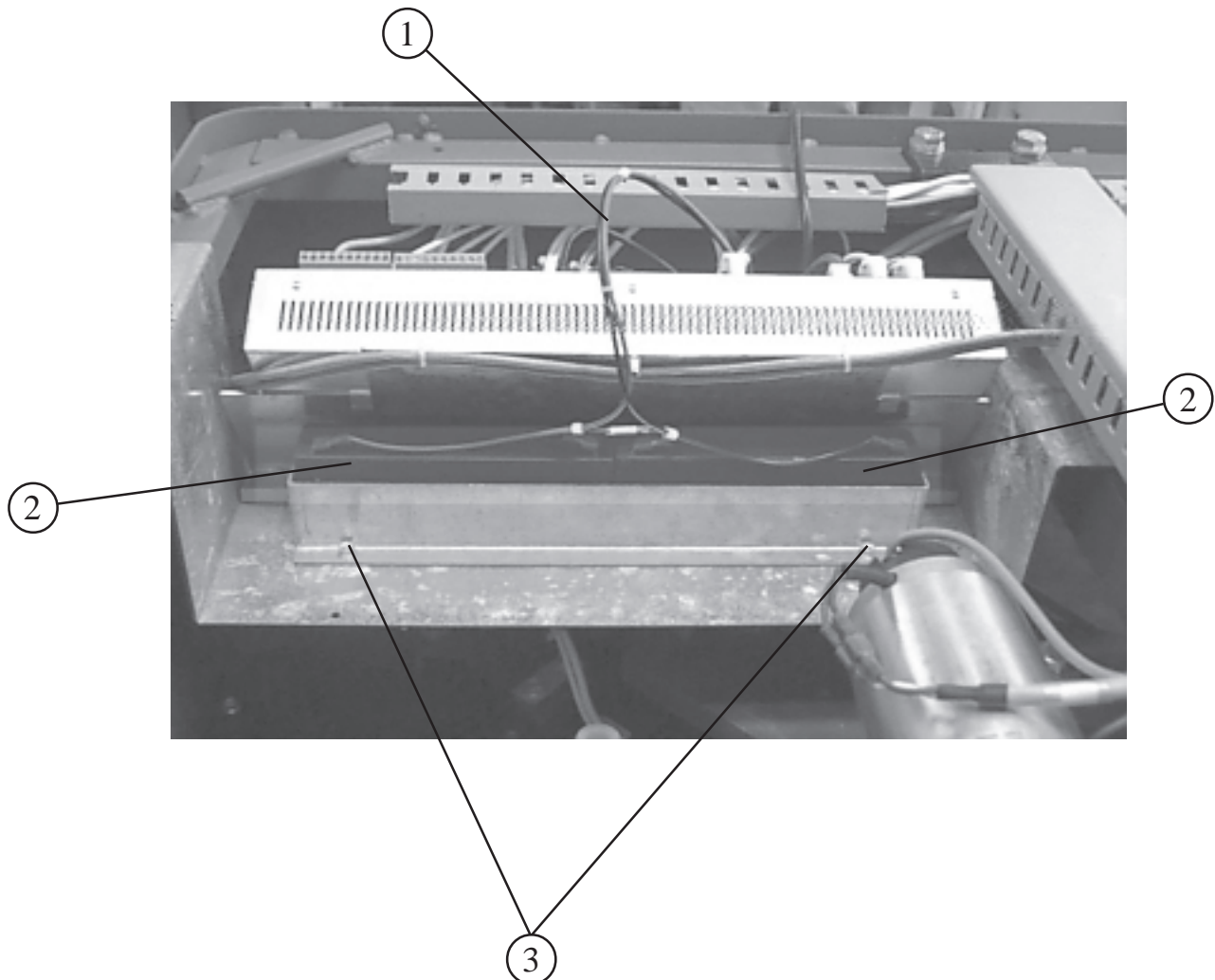and fits properly.

Accident prevention photocells

**WARNING: Turn off the booth before you do any maintenance
using the single board's ON/OFF switch and open the door manually.**

SUBSTITUTING THE PHOTOCELL

1. Remove the panel (2) from the edge (see "Removing the panel").
2. Remove the photocell (1) as in the photograph.
3. Free the photocell's cable from inside the panel and the raceways.
4. Disconnect the cable and remove it.
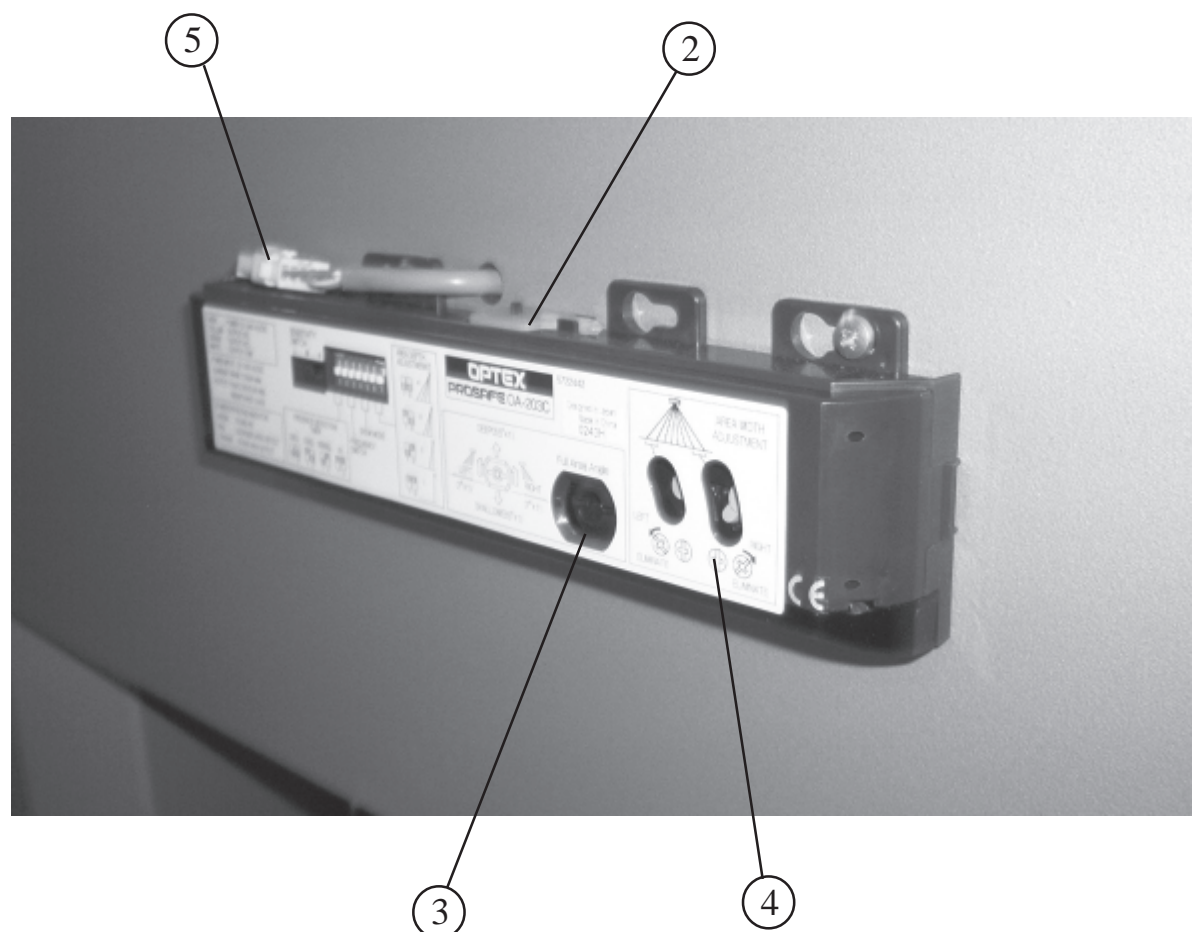5. Insert the new photocell, position and connect the cable as it was .

Batteries

**WARNING: Turn off the booth before you do any maintenance
using the single board's ON/OFF switch and open the door manually.**

SUBSTITUTING THE BATTERIES

1. Disconnect the cables (1) from the batteries.
2. Un-tighten and remove the screws (3).
3. Substitute the batteries (2) and reconnect the cables (1) respecting the polarity (Red positive, Black negative).

External radar (opening door)

**WARNING: Turn off the booth before you do any maintenance
using the single board's ON/OFF switch and open the door manually.**

ADJUSTING THE OPTEX RADAR

1. Take the top off (1).
2. Modify the inclination of the optex radar using the key (2) in the sliding lever and full area angle
(3), if it is necessary to move the sensitivity of the radar further away or to bring it closer to the door.
3. To modify the inclination of the optex radar towards the right or the left use the key (2) in the area
width adjustment leaver (4).

Radar connection diagram
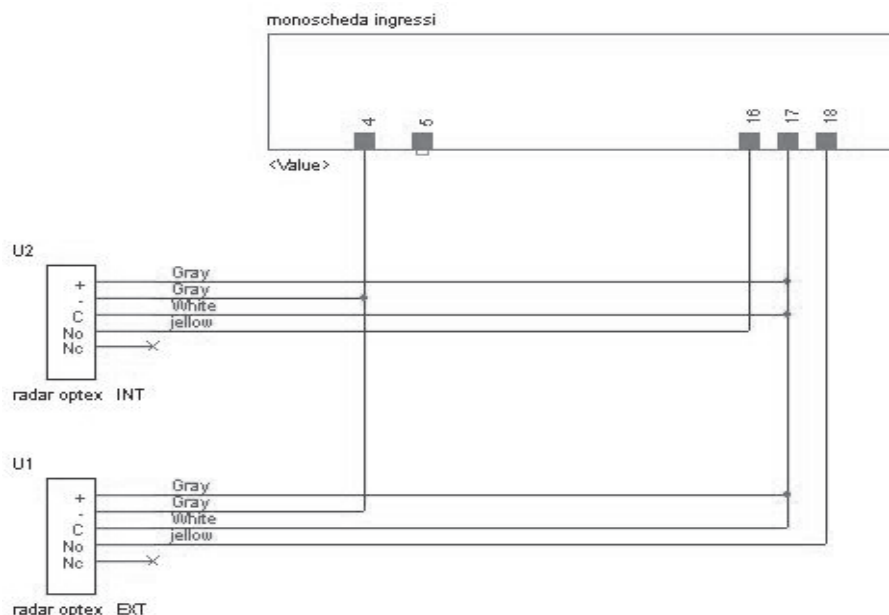
Adjusting the motor brake
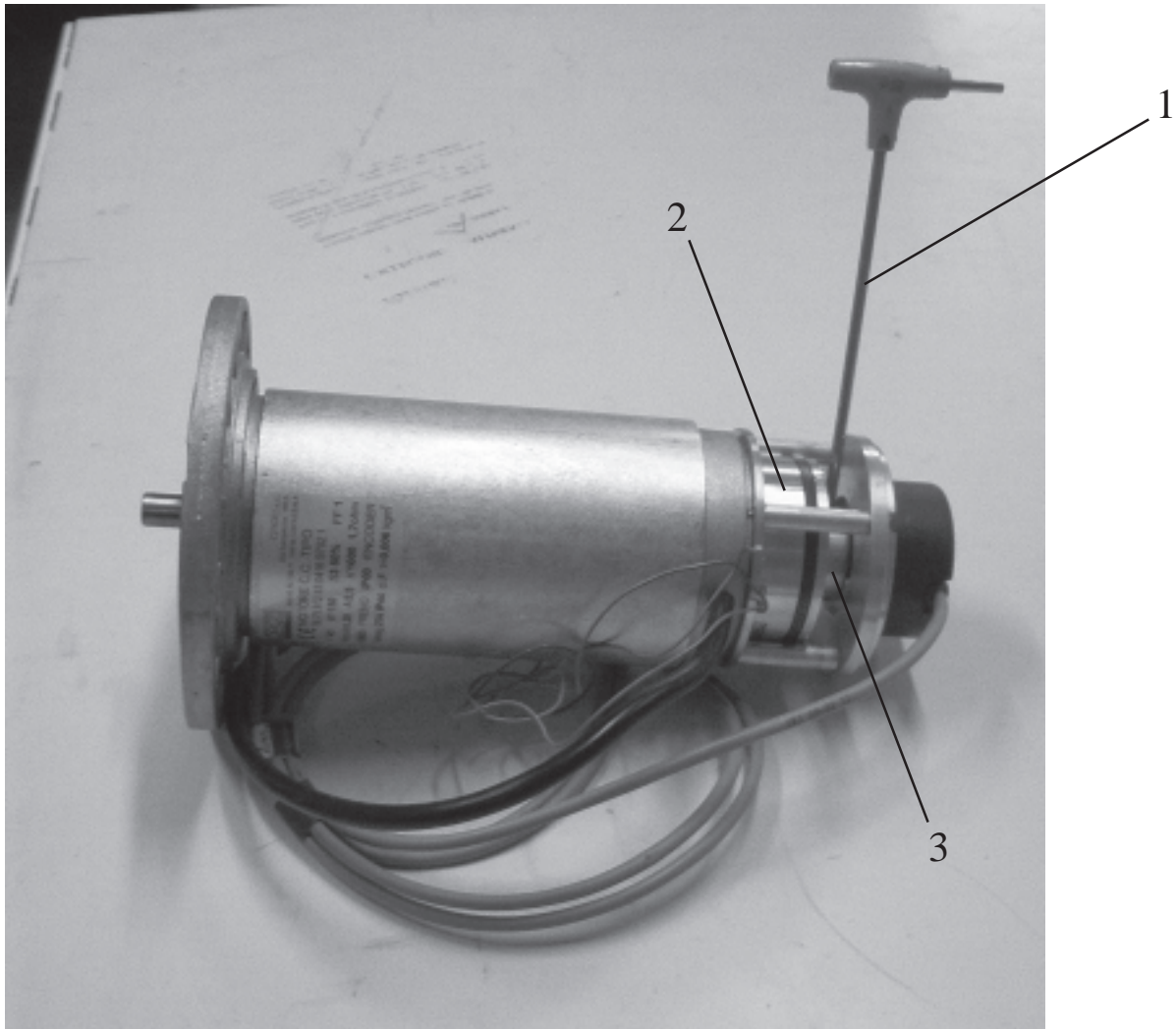
The adjustment of the brake must be done with the booth in OFF position.
With the spanner key "1" loosen plate "3" which must be positioned at a distance of 3 tenths of mm from the body of the brake "2". In order to determine the distance, place the gauge between elements "3" and "2" then tighten with spanner "1".

ATTENTION: Verify that when the doors are moving, the plate does not come in contact with the body of the brake.

V - FUNCTION ANOMALIES

| *ANOMALY*	*POSSIBLE SOLUTIONS*
The external door opens and closes constantly a voice message asks to "Please put all metal objects in the box"	**1) Check and see if any dangerous or suspicius object has been abandoned in the booth.** Please do not do anything and ring the alarm. If it is a different object remove it as follows: 1.1) Do a "Reset" on the serial console and press "Enter" on the digital console. 1.2) Open the internal door using the exit button and remove the object. 1.3) After the door closes repeat the procedure described in point 1.1. **2) After having verified that the booth is empty follow the procedure described in point 1.1.** **3) Should this problem arise immeditely after or after a short period of time please contact Saima's assistance service.**
The door does not close.	**1) Two people are in the booth at the same time:** 1.1) Through the intercom ask one person to leave. **2) A person that weighs too much is inside the booth or an adult with a child:** 2.1) Push "Enter" on the digital console and "Reset" on the serial console if you want to allow the person/people to pass. If not use the intercom and ask the person to leave. **3) The booth is empty:** 3.1) Check the console's condition. See that the "block" function is not active on both the serial console and the digital console. **4) The booth is empty and none of the above conditions apply. (1-2-3):** 4.1) Push "Enter" on the digital console and "Reset" on the serial console. **5) The photocell on the side of the passage is covered:** 5.1) Remove the object in front of the photocell. 5.2) Clean the photocell's glass. 5.3) Turn off the photocell. If it is the external photocell push 10 on the serial console or 11 for the internal door. Press 7 for a second at the same time. The booth is reset, but you must call Saima's assistance service. **6) Please contact Saima's assistance service.**

ANOMALY	*POSSIBLE SOLUTIONS*
The door does not work properly.	1) Verify the settings ont the console. 2) Do a console "Reset" (only the serial console).
The metal detector's alarm goes off constantly.	1) Make sure that there are no metal objects near the external door. 2) Make sure that there are no maintenance workers or equipment near the booth. 3) On the serial console press "Control" to de-activate the metal detector and call Saima assistance service . 4) On the digital console it is possible to lower the metal detector's sensitivity (call Saima assistance service).

CONNECTION PLAN COMPUTER - MAIN ELECTRONIC SYSTEM
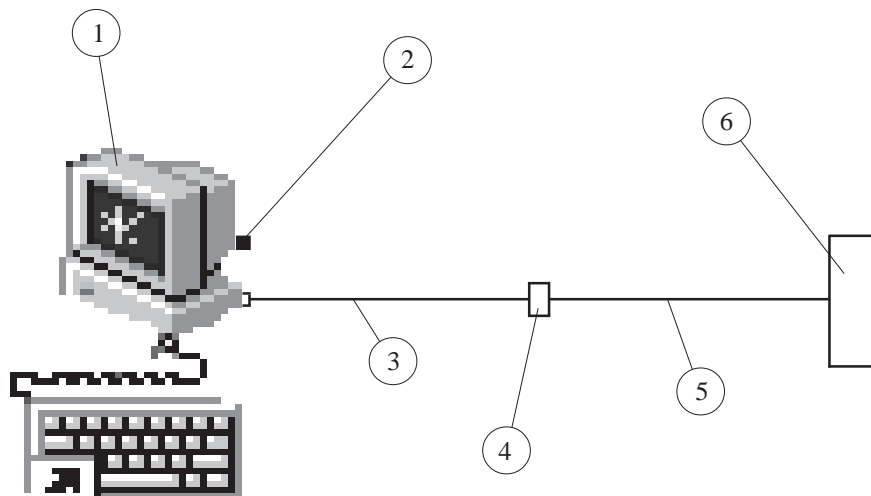
1 - Personal computer.
2 - Hardware key.
3 - Serial cable DB9 female, DB9 male.
4 - RS232 / RS485 converter.
5 - Converter cable - 8 pin.
6 - Main electronic system.

CONNECTION PLAN COMPUTER - METAL DETECTOR
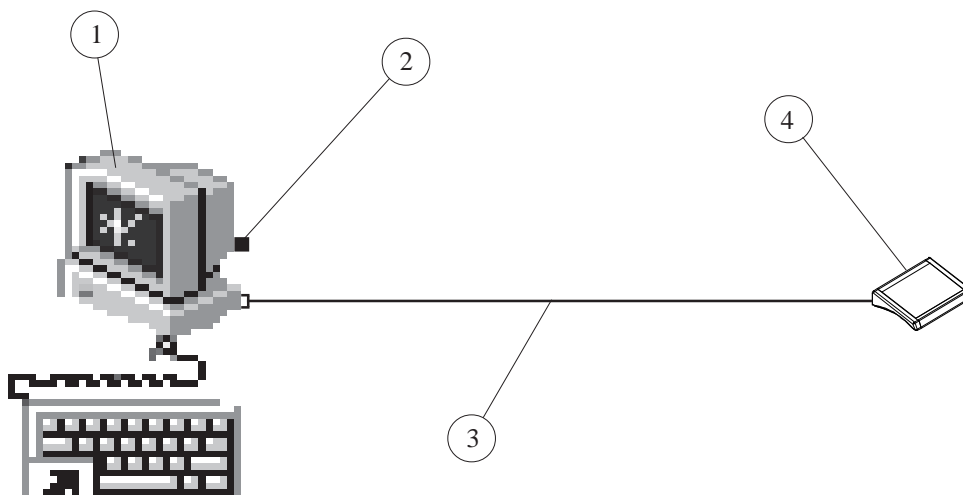
1 - Personal computer.
2 - Hardware key.
3 - Serial cable RS232 - DB9 female, DB9 male.
4 - Metal Detector main electronic system.