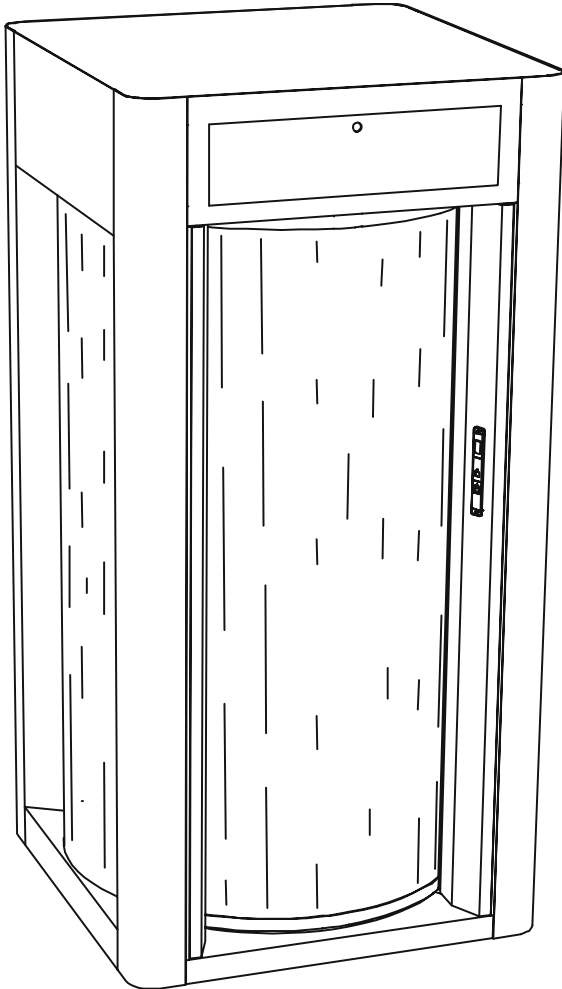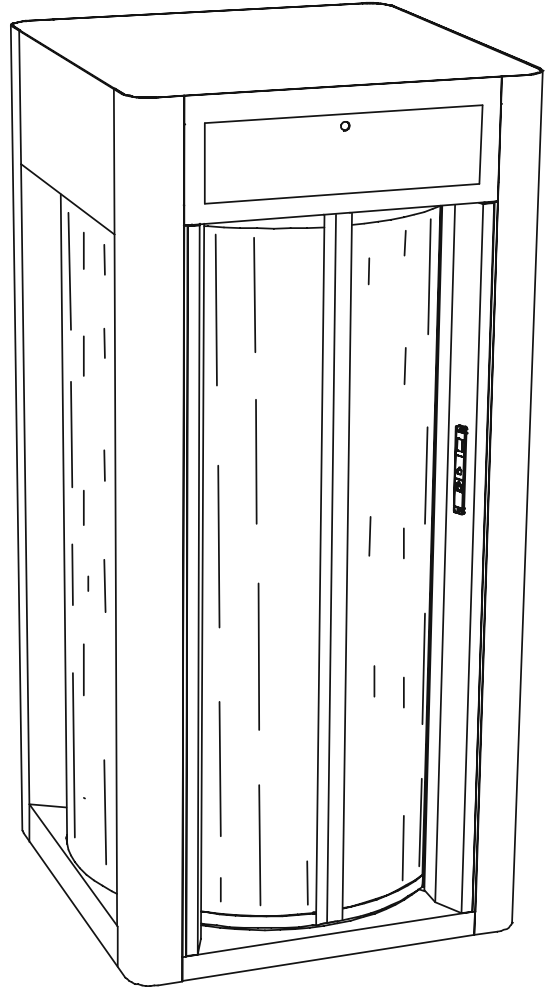# MINISUN

2 DOORS   4 DOORS

USE HANDBOOK

SAIMA SICUREZZA S.p.A.

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CE

Saima Sicurezza S.p.A. is a company belonging to the Saima Group born in 1977. Since 1997 the company has obtained the UNI EN ISO 9001 certification.

CONFORMITY DECLARATION :

Saima Sicurezza Spa declares that the booth mod. **MINISUN**, identifiable by the data at the foot of the page, is in accordance with the following laws: UNI 8612 – EEC 89/106 – ECC 89/336 – ECC 73/23 as far as they can be enforced.

Thank you for trusting in our company and buying our products. We would like to remind you that this handbook is an integral part of our ANTI-ROBBERY BOOTH and for this reason it is necessary to follow its instructions. If the system has not been set, please examine the chapter about "System installation".
This handbook contains important information about safety and some information about the maintenance for users.

No part of this handbook can be reproduced in any form, electronic or mechanic system, without SAIMA SICUREZZA S.p.A. written authorization. Drawings and descriptions of this handbook are subject to changes or modifications without previous notice.

Model   Working specifications   Serial number

Saima Sicurezza Spa Production Division - Indicatore, Arezzo.

Date ....

Responsible for the testing ....

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Introduction.

Functions and use.

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INTRODUCTION

This handbook contains the maintenance instructions in order to get the best results and to achieve the highest efficiency levels from your booth.

Please, read the recommendations carefully, before using the booth. Information about re-pairs, adjustments and settings different from those which have been set up are described in the technical handbooks you can request them at Saima Sicurezza Spa directly.

Keep this handbook in a safe place for further consultation

Warranty

The booth is warranted for a period of one year from the testing date. We are at your disposal for any further information you may need. Please, remember that the warranty is void if you do not follow the directions here stated.

Any manufacturer's liability is void if the user makes changes without the manufacturer's previous written authorisation.

Saima Sicurezza S.p.A. reserves the right to do all the necessary changes to improve the booth.

Destination

The booth must be used as a safety door equipped with entrance control.
Restrictions:

The booth must be only used for the purpose it has been expressly conceived , taking into account the restrictions shown inside the handbook.

Any other use must be considered inappropriate and wrong.

The manufacturer cannot be considered responsible for any damage caused by inappropri-ate, wrong or irrational use of the booth.

Identification

The metal plate, shown here, contains
all the information about the identification and operating system. It is placed on the booth's roof close to the internal inspection door.
Together with a possible maintenance request it is necessary to give the serial number written on the plate.

SAIMA
SICUREZZA S.P.A.
INDICATORE (AR) ITALIA
Tel. 0575-9291

CE

SERIAL NUMBER		VOLTAGE (V)	
YEAR		FREQUENCY (Hz)	
MODEL		POWER (Kw)	
WEIGHT (Kg)		MAX FORCE (N)	

4

General safety regulations

Only special trained and authorised staff can carry out the maintenance service. The manufacturer is not responsible for any tampering or modification of the system, which has not been previously authorised. The removal or tampering of safety devices involves the breaking of European regulations concerning safety.

We exhort you to use only original spare parts. Our machines are designed to accept original spare parts only. Skilled staff must carry out their setting, respecting the instructions hereby.

Please, be sure that when the system operates, all safety conditions are respected. If you notice any irregularities, please stop the system immediately and call SAIMA SICUREZZA S.p.A. maintenance service.

Only skilled staff must service the electric system, even if of small entity.

Safety devices

- Manual release of the system in case of total energy absence;

- Internal button of aid call;

- Inaccessible mechanic motion;

- Metal plates showing the correct procedures to be followed;

- Sensitive devices to open in case it is intercepted during the closing phase;

- Electronic couple governor to keep the noticeable thrust on the door;

- Electric isolation;

- Safety transformer;

- Peripheral devices working by SELV.

We remind all of our customers to follow the norms in force, first of all the system's grounding and safety devices.

Maintenance

The door has been realized in compliance with the regulations in force and taking into account the European Community Laws.

We exhort you to verify the system six-monthly. Only qualified staff must carry out the system inspection. During the scheduled maintenance, it is necessary to carry out the procedures mentioned in the system handbook (see Maintenance - System handbook).

FUNCTIONS AND USE

Technical description

The anti-robbery booth is equipped with a special system that allows to detect the presence of metal objects and/or people (anti-hostage function) inside the transit area. Upon request, the booth can be supplied with Biometric systems for the recognizes people. Information on dimension is shown in figures 8-9.

N.B. The object detection system concerns only the internal area. So, it is possible to anchor the booth to lateral structures (extension jamb, frames, etc.) without compromising the system.

The anti-robbery monobloc is made of steel sheet, strengthened tubular bars of considerable thickness. The varnishing is made with special materials, which makes the end item weather and shock-proof.

The transit area parts are made with special resistance materials, as well as the door's supports where the bent bullet-proof glass houses.

The Metal Detector is placed inside the lateral walls of the booth's entrance door. The Metal Detector's control board and logic management are placed in the upper part of the booth and it is easy to inspect them.

A plastic cover repairs the upper part from the dust. The door's movement is electromechanical and it is controlled by direct current motors. The motor's underfeeding guarantees a further accident prevention protection, in addition to the protection given of the photo-cells protecting the doors.

The booth is also equipped with:

- an intercom unit allows conversation between the control console and the outside;
- voice synthesis with one or more messages (on request);
- push-button panels with the signalling leds (colours: red, yellow, green), intercom call button, microphone, door opening button;
- stop button and intercom emergency call placed inside the booth;
- roof lamp formed by flash lights, loudspeaker, intercom button (on request);
- mechanic key that turns the booth on and to closes it at night.

If the mechanical key is not used there is a possibility that the doors will be unlocked and can be opened manually should the batteries run down.

Serial control console

The serial control console is equipped with the main functions usually used to program the booth's operating modalities.

The serial console can be used as single and secondary console combined with the digital console.

The functions can be enabled, disabled with a key: a signalling led will show the condition.

SEE FIGURE 1A SERIAL CONTROL CONSOLE

Serial console working

ON/OFF key to enable the console
ON- Console enabled   *OFF-console disabled*

Night Function
By pressing this button it is possible to enable the entrance to cleaning staff, maintenance staff, etc. with the mechanic lock or with an impulsive contact (lock with spring contact, electronic key, badge reader, etc.).
Led on= function enabled   *Led off= standard function*

Check
This function checks the metal detector's permanent disconnection detector, weight and biometric checks.
Led on= check enabled   *Led off= check disabled*

Reset
This key allowes to cancel one of the alarms in progress, which are signelled by the special acoustic signal.
Led on= reset for one passage   *Led off= standard working*
Emergency
It opens the two doors simultaneously.
Led on= simultaneous opening of the doors   *Led off= standard working*

Block

It turns the booth off. It is not possible to enter or to exit.

Led on= block of the doors   *Led off= standard working*

Booth

It controls the up to three booths using the same console. By pressing this key, it is possible to select a booth and in case of alarm, it will move automatically.

Automatic/Manual

By pressing this button, it is possible to control the manual and automatic phases signalled by the special two-colour led.

Green led= unidirectional entrance   *Yellow led= unidirectional exit*
Yellow/Green led = bidirectional

External door

It allows to open the external door manually.

Green led= external door open   *Red led= external door closed*

Internal door

It allows to open the internal door manually.

Green led= internal door open   *Red led = internal door closed*

Intercom

Should there be an intercom call from a booth, a bell in the console goes on. Lifting the intercom's handset, the console connects with the booth from where the call came from. When the handset is raised, and there are more booths on line, press the key 7 (booth1, booth2, booth3) to connect with the desired booth.

Resetting the main panel

For a complete Reset of the main panel press the buttons 8 and 11 together until all the console's lights go off.
Releasing the booth's buttons it will automatically reset.

While Resetting do not do other operations on the console or the booth.

Digital control console with display

(optional)

SEE FIGURE 1B DIGITAL CONTROL CONSOLE

Main menu

The main menu is what the user sees on the display during standard running of the system. It is divided in two parts: on the left, are the commands that can be sent to the booth, on the right it is summarises the system's condition.

1st Scheme on display	**2nd Scheme on display**

1 Starting ●	< > B1
2 Metal o	
3 Weight ●	day/month/year
4 Bio o	↓ hh:mm

5 Bidirectional ●	< > B1
6 Block o	
7 Emergency door ●	
8 Semiaut. o	↑↓ hh:mm

- The number (0-8) written before the function shows the associated key.
- <u>The beeds that are displayed after the functions show if they are activated</u> "●" **<u>or not</u>** "o".
- It is possible to change the parameters by pressing the related key;
- The pages can be scrolled down by the cursor control keys ↑↓.

<u>There are the following functions:</u>
- **Turning on** function (1): it allows to turn on or off the booth;
- **Metal Detector** check (2): it allows to locate the passage of metal objects inside the booth;
- **Weight check** function (3): it allows the passage of one person only;
- **Bio** function (4): it allows the passage of the person, by the digital finger print recognition (if requested).
- **Bidirectional** function (5): no led is associated to it, because by pressing the key number five, the function change at every pressure and becomes respectively BIDIRECTIONAL transit in entrance and exit; EXIT: transit in exit only; ENTRANCE: transit in entrance only; MANUAL: transit in exit and entrance, the commands of the booth are given only by the operator in the console;
- **Block function** (6): it allows the block of the passage in every door condition.
- **Emergency Door** function (7) (*if there is an emergency exit on the booth's side)*: it allows the emergency door to open.
- **Semiautomatic** function (8): automatic opening of the first door (in entrance and exit) , opening of the second door by the operator in the console.

On the display's right part, there is the system's information which is subdivided as follows:

First line:
The symbol "<" and ">" refers to the door's conditions. If they appear as in the figure, the doors are closed. If they are reserved, they show that the doors are open. Between the symbols "<"and ">" there is an empty space. When a person enters in the booth, this display space will show the *stylised* drawing of a person. The letter "B" followed by a number shows the selected booth (in case of many booths).

Second line: Empty

Third line: It shows the date

Fourth line: It shows the cursor control keys of the menus and the time. Up arrow: previous scheme. Down arrow: following scheme.

Keyboard

On the keyboard there are both alphanumeric and symbolic keys. Some keys have pre-fixed functions; some others have different functions on the basis of the context in which they are used (ref. fig. 1B)

② • **B key:** commands and information on the display refer to the selected booth.

⑧ • **"∗" key** on red background: it turns on the EMERGENCY function; to quit this condition, press the ENTER key. (Ref. Chapter "ALARMS").

⑨ • **key showing the "danger" symbol** on yellow background: it releases the closed door; to restore it, it is necessary to press the ENTER key (Ref. Chapter "ALARMS").

⑤ • **"ESC", "OK"** and **"F1"** keys to execute the *"SETUP"* operation.

⑤ • **F2 key** puts on the "EMERGENCY FOR ALL BOOTHS" (it is enabled only if there are more booths). To quit this condition, press the ENTER key.

⑥ • the **"ENTER" key** is used to end an alarm in progress.(Ref. Chapter "ALARMS").

Alarms

Once there is a booth alarm, the display shows what kind of alarm is in progress.

During an alarm, by pressing the ESC key, it is possible to go back to the main menu without turning off the alarm and the indication on the display. By pressing the ENTER key the booth's functions are restored.

• **Release**: shows that the booth's inside release button or from the console has been pressed.

• **Emergency:** shows the "simultaneous opening of the two doors".

• **Metal Detector alarm**: shows that a metal detector alarm is in progress. By pressing the ENTER key this alarm allows the reset for one passage. Once this passage has occurred, the "Metal Detector check" goes on again automatically.

• **Object in the booth**: shows an object that has been deposited in the booth. By pressing the ENTER key this alarm allows the reset for one passage. Once this passage has occurred, the "Object check" goes on again automatically.

• **Exceeding weight**: shows that the weight inside the booth is higher than the fixed threshold or that the anti-hostage device has detected more than one person inside the booth. By pressing the ENTER key this alarm allows the reset for one passage. Once this passage is ended, the "Weight check" goes on again automatically.

•**No net**: shows that the system is working with batteries. This alarm does not allow the reset. By pressing ESC, the right side of the display shows the writing: "No net".

User Menu

To enter inside the *user menu*, press the **F1 key**.
Enter the password (STD password = 999999), ESC to quit the menu.
A list of functions will appear on the console display; these functions can be modified according to the necessities. With the arithmetic keys "+" and "-", it is possible to increase or decrease the numerical values.
With the ENTER key it is possible to enable or disable the functions with the symbols **"•"** - **"o"** and, when the symbol "↵" appears, it is possible to go in a sub menu.

Display

Object weight Gr.	8000
Exceeding weight: Kg 120	
→ Buzzer	•
Date – time	↵
Summer time	•
Password change	↵

(+ -) **This function is enabled with the specific weight card only.**

(+ -) **This function in enabled with the specific weight card only**

(↵) (console keys bell)

(↵)

DATE/TIME

To change the parameters to the function **Date/Time,** it is necessary to select the function with the keys **"↑" and "↓"** and to press the **ENTER key**.

Display

Time	→11 – 54
Date	5 – 1 – 99
Tuesday	True Solar Time
OK = save	↓ ESC

OK = to save the parameters
ESC = to come back to the previous menu without saving the parameters
↓ = to shift inside the menu
Numeric keys= to set the desired value

SUMMER TIME

To change **summer time/true solar time** (EU automatic updating)
-    select the parameter SUMMER TIME by with the **keys↑↓**;
-    press the **ENTER key** to disable the function (the symbol near the function will change from ● to Ο).

LANGUAGE SELECTION

-    Press **F1-** enter the numbers **999999** on the password **-** press **Enter -** select the desired language scrolling down with the menu keys up to **7 -** press **Enter** once chosen - Press **ESC.**

Display

| ENGLISH | |
| OK = save | ↓   ESC |

OK = to save the parameters
ESC = to come back to the previous menu without saving the parameters
↓ = to shift inside the menu
Numeric keys = to set the desired parameter

Protection of the menu

To change the parameters in this function it is necessary to select it with the keys "↑" and "↓" and to press the **ENTER key.**

The display will show the following menu:

```
→  Starting                  o
    Metal Detector check     o
    Weight check             o
    Bio check                o
    Autom. Manual            o
    Block                    o
    Emergency door           o
    Semiautomatic            o
    Emergency                o
    External button          o
    Continuous rotation          o
    OK = save            ↑↓      ESC
```

Display

OK = to save the parameters
ESC = to go back to the previous menu without saving the parameters
↑ ↓ = to shift the cursor for the selection of the desired function inside the menu

__WARNING! The selected functions can be enabled or disabled also if the console operating key is OFF.__

__The functions "External and Continuous rotation" are operative only for the booths mod. ROTANT.__

Password change

To change the parameters in the "Password change" function, it is necessary to select it with the keys "↑" and "↓" and to press the ENTER key.

Enter the new password and confirm it.

Intercom

In case there is a call from a booth, the bell in the console goes on. Lifting the handset, the console connects via intercom with the booth from which the call came from.

When the handset is raised, and if there is more than one booth on line, the right part of the display will show the writing: "Intercom", and below: "B<number>". By selecting the booth's key to communicate the writing : "connected <number>" appears.

Entrance/Exit procedure

Turning on the booth

The booth can be turned on with the control console keys.

Use the mechanic or electric keys for the first entrance and the mechanic key for the last exit (fig. 2 and/or fig. 6).

When the booth is turned on, the door's first opening cycle will be executed automatically; it has to be used for the entrance of the first person. For safety reasons, also the first passage is protected by the metal detector.

Standard transit

After turning on the booth, make sure that the console is programmed for the standard transit; it must occur as follows:

1) Press the call external button (detail n°6 fig. 2 and/or fig. 6), which is placed beside the transit area and wait until the door opens.
2) Enter in the booth.
3) Wait for the external door to close and the internal one to open.
4) Exit from the booth.

Metal Detector alarm (if there is).

Every time somebody tries to transit trough the booth with a metal object comparable in weight and dimensions to a weapon, the metal detector's allarm goes off. The alarm condition will activate a special recorded message contained in the voice synthesis that will invite the user to exit and deposit the metal objects in a suitable box.

The first door will stay open, so that the user entering inside can exit. In this way, it will close and check automatically the transit area, in order to verify the presence of metal objects left inside it.

If the check will be negative, the monobloc resets automatically and it will be ready for a new transit. Otherwise, the external door continue to open and close, until the object deposited inside will be removed.

Transit with metal objects (if there is the Metal Detector).

To allow the entrance in the protected area to a person with metal objects or weapons (for example, security guards, escorts for valuables) it is necessary to follow this procedure:

1. If entering the user has set the metal detector's allarm off, the operator can turn off the metal detector with the console, allowing the entrance;
2. If the person, before entering, will ask entrance permission trough the intercom, using the console the operator can turn off the metal detector.

In both cases, the operator has to only switch the metal detector in the ON position.

Door closed to the public.

In order to prevent the entrance to the public, during fixed times, it is necessary to turn off the opening button of the external door using the "Bi-directional/unidirectional exit" command on the console. In this case, the user has to ask for the entrance trough the intercom.

Anti-hostage alarm

The weight check system is set up at 120 Kg of max. threshold by the head office directly (except for customer's specific request). If there is a weight greater than the above-mentioned value, the exit procedure will be interrupted and the external door will remain open.

In the meantime, a voice synthesis message will invite to contact the operator through the intercom.

(If there is the digital console, the display will show the writing "ANTI-HOSTAGE ALARM" with the simultaneous turning on of an acoustic sound).

Procedure for the transit of two persons.

If two people have to transit simultaneously, (or, in any case, with the "Anti-hostage" alarm on) by pressing the *Reset* key (*Enter* key for the digital console) the system will end the entrance proce dure.

Opening doors in emergency.

The Emergency command on the console allows the simultaneous opening of the doors.

If there is no power supply or if the booth breaks down, it is necessary to use the **manual emergency**. In this case, open the from door inside the bank (over the transit area), switch off the power supply using the **ON/OFF** switch placed on the electronic logic's rack.

If there is a person inside the booth, and there is no power supply, it is possible to open the external door manually.

N.B.: It is important to do this operation after having turned off the booth's main switch.

Automatic function in emergency.

Should there be a power supply failure (220v) the batteries will start working automatically and will enable the functions for at least 30 more minutes. After such time the doors will not work. By pushing the on switch on the main panel it is possible to use an extra energy reserve that will allow some extra door openings.

N.B.: The use of the main panel switch must be used only for emergencies since it can ruin the batteries and will need to be substituted if they do not re-charge.

Stop button inside the booth. (detail n°9 fig. 2 and/or fig. 6).

If the stop function is turned on when the doors are moving, it will allow only to open the doors manually.

If the stop function is turned on when both doors are closed, the external door's brake releases, and the movements of the doors are blocked.

To restore the booth's standard operation, it is necessary to reset it.

Passage authorization.

Should undesired people be recognized or if there is the necessity to interrupt the entrance's passage, it can be done by switching to the OFF position the command on the console (fig. 1A - fig. 1B).

To restore the normal passage switch to the ON position.

Booth does not function properly.

Should there be problems with the booth's functions verify that the controls on the console are switched to NORMAL TRANSIT before you do other checks. Unstable current or a long period without power supply can cause problems to the booth, simulating for example, the presence of an object.

To restore the booth to normal working condition, switch OFF the booth on the main console, wait a few seconds and then turn it on again.

In case of a blackout or if the batteries have run out it is possible to open the doors as described in the **emergency procedure**.

Should these malfunctions persist or should problems arise different from those described, please call our maintenance service:

TEL (+39) 0575 9291 - 987116
FAX (+39) 0575 929238

SYSTEM INSTALLATION

Preliminary checks

Before installing the booth, it is necessary to check the following very carefully, in order to avoid possible failures.

N.B. Possible floor defects can cause an incorrect working of the system.

- Make sure that the booth can be carried in a vertical position to the desired place.

N.B.: When moving, avoid stresses on the Metal Detector's columns.

The booth cannot be reduced in dimensions, but it can be carried in an horizontal position for a short way, then restore it to its vertical position.

N.B.: Moving the booth can cause mechanical damages. We suggest that only skilled and equipped staff do the job.

Inform Saima Sicurezza when this operation is necessary.

- Verify that the ceiling of the location area is, at least, 280 cm high (every booth is 240 cm high). This will guarantee the entry into the upper part of the system and to carry out the assembly and the maintenance operations of the booth.

- Verify that disturbance sources do not cause metal detector failures (see the paragraph about "Metal Detector disturbance sources" further on in this chapter).

N.B: For the Metal Detector to work correctly, it is important that the surrounding area remains the same and does not change in time.

Unpacking

After the unpacking operations, make sure that all the booth's components are complete. See if there are any visibly damaged parts. In case of doubts, contact Saima Sicurezza S.p.A. directly.

PACKING PARTS (SUCH AS PLASTIC BAGS, FOAM POLYSTYRENE, NAILS, SCREWS, WOODS ETC.) MUST BE KEPT AWAY FROM CHILDREN'S REACH, AS THEY CAN BE EXTREMELY DANGEROUS.

Collect the above mentioned materials in special dumps.

Once the unpacking has ended, before assembling the booth, keep its components in a clean and dry place.
Only skilled staff, which has been authorised by Saima Sicurezza S.p.A., can carry out the installation and the assembly of the booth. The installation and assembly handbook must be followed.

After assembling, the technician, and the customer, will test the booth and fill in the testing form. The customer will sign the form if the test is positive.

A qualified technician must do the testing as well as all the adjustment and he must have the booth in running order.

M.D. disturbance sources

The metal detector is a device sensitive to electro-magnetic parasitic disturbances. In order to achieve the highest performances, especially at the highest sensitivity levels, it is necessary to take some precautions when you use the structures in which it is placed.

There are two different kinds of interference sources:

1)   mechanical disturbances
2)   electric disturbances.

Mechanic disturbances

The metal detector has an electro-magnetic field generator that is able to induce an electromotive force in its receiving section. If the action of passing through metal objects modifies this force, the appliance will go on. The flux of magnetic field runs partly over the space surrounding the probe, too.

Possible adjacent metal structures can introduce field absorptions, which can be due to:

A-   The moving of considerable metal masses or masses placed especially close to the aerials.

B-   Fixed metal structures that are placed near the Metal Detector can be replaced by panels made of formica, bakelite, polycarbonate or other insulating materials.

C-   Doors: if the doors are made with metal materials, they must be placed at a distance of at least 60 cm. The scroll formed by the door's metal section bars must be insulated. If the doors are made of insulating material (blindovis with wood, etc.) the mentioned precautions are not necessary.

D- Electro-magnetic scrolls formed by structural components (metal frames, glass doors, metal ceiling strips, etc.) that because of movements or vibrations, do not have a stable nature. If the scrolls are liable to movement, they must be removed from the aerials or eliminated by insulation. If the scrolls are fixed, since they are made of structures and section bars surrounding the metal detector, they must be insulated by an appropriate split. Otherwise, they can be made electrically stable by rivetings or electrical by-pass connections (in case of varnishing, remove the varnish coat on the faying surface of the screws, and use toothed washers).

Electric disturbances

Electric disturbances are produced when the aerials are near power supply cables (electro-magnetic field generated by alternating currents) or sources of impulsive electro-magnetic disturbances (electric motors with a high ignition absorption and related power supply cables, fluorescent lights, emergency generators, teleprinters, air conditioning units, remote control switches, etc.).

A-   Power supply cables should be placed at a distance of at least 20 cm from the sensitive probe, especially from the receiving one (the distance depends on the currents intensity). They must also be twisted with a pitch greater than 2.5 cm (if it is not possible, they must be inserted into a screening tube made of ferrous material at least 2 mm thick).

B-   Impulse sources must be removed, eliminated or screened.

   b_1. Fluorescent lights: the lights and their related reactors must be removed from the Metal Detector and especially from the Metal Detector's receiving probe marked by the red stamp. Where it is possible, change the fluorescent lights with filament lights.

. b_2. Electric locks: if they are placed close to the Metal Detector's probe, we suggest to use those supplied with screening; it is better to use motorized locks with a lower accelleration current.

Positioning the Booth

The booth's installation can be carried out in two different ways:
a) - Leaned installation
b) - Embedded installation

LEANED INSTALLATION:
1) Position the booth in the fixed place, putting the external side of it towards the outside of the place. To move the booth, use a crane with a minimum lifting power of 1500 kg, using chains hooked to the booth's four "A" upper edges, the crowbar on the bottom (*fig. 10A*) and the rollers under the base (*fig. 10B*);

SEE FIGURES 10A-10B BOOTH MOVEMENTS

2) Free the booth from the external package only after positioning;

3) Secure the booth to the ground, so that it cannot move using the stopping feet (1-2-3-4) placed under the rubber floor *(fig.11)*. Stability is necessary for the booth to work properly.

SEE FIGURE 11 STOPPING FEET

4) Attach any possible fastenings to the booth's structure, paying attention to the screws, which cannot be inserted for more than 2 cm. Do not make holes in the plastic ang glassy parts of the structure. Do not make holes near the glass. Keep away from the edge of the lateral glass at least 3 cm; do not obstruct the inspection doors with plugging structures.

5) Should there be 2 or more booths coupled, determine the right and the left one. Special information is shown on the booth's external side, under the package. It is important to respect the position directions according to the installation environment.

EMBEDDED INSTALLATION:
The installation is embedded when the booth's floor and the external one are at the same level.
If the building is new, it is necessary:
- place the frame that Saima Sicurezza supplies upon request (fig. 12);
- lay cement externally;
- lay cement until the whole framework is covered.
If the place exist already, it is necessary to make an opening in the floor with the frame's same external dimensions that must be embedded and cemented.

1) Follow the directions previously described at point n°1 of the leaned installation

SEE FIGURE 12 EMBEDDED INSTALLATION

2) Embed the booth into the frame orienting it towards the right direction.

3) Use the plastic section bars (detail A, *fig. 12*) which are supplied upon request, as staff bed between the booth and the metal frame, adapting them to the installation and fixing them with silicone.

Lateral frames application

To anchor the booth to the plugging structures, see the lower figure (fig.13).

SEE FIGURE 13 LATERAL FRAMES APPLICATION

Follow this procedure to apply the frames:
1) Place the booth on the fixed place.
2) With the plugging structures, stand against the chosen anchoring area on the booth (*fig.10*)
3) At the same time drill the booth's frame and sheet, with an appropriate drill;
4) Screw in self-tapping screws with of suitable size;
5) Tighten the screws firmly.

Examples of installation.

SEE FIGURE 14 EXAMPLES OF INSTALLATION

Wiring

1) Close to the booth's housing, make an electric connector box powered by a cable connected to the bank's fuse box. The booth is supplied with a 1,5 m long power supply cable complete with plug.

   We recommend you protect the power supply cable with a 15 A Id = 0.03 A differential switch. Make sure that the grounding is good.

SEE FIGURE 12 WIRING

N.B. 1: We suggest you make the connector box with n°2 plugs and with the differential gear included.

2) From the upper part of the booth, arrange a multipolar cable connecting the booth to the place where the operator is assigned to operate the console, using a duct with a diameter of 32 mm. **Use a duct different from the one used for the power supply cable.**

3) In case of coupled booths, the connector box power supply must be separated. To connect with the console, all booths must be connected between them using Saima's connecting cable (cod. 5804530).

4) Connect the console's cable.

N.B.2: The cable's passage can be also made at the bottom (see figure 2). In this case, arrange the insertion of cables inside the booth's vertical passage holes when it is placed on the ground.

Use a duct separated from the one used for the power supply cable. In order to respect the laws, it is necessary to grund the connection.

5) Switch on the bank's main, which feeds the booth with the privileged line. So, switch on the booth's main.

WARNING!: Before starting the booth, remove the door-block rod placed on the booth's ceiling.

6) Start the booth with the ignition key placed on the console or the key placed on the external side of the booth. Wait approximately 10 seconds, during which do not touch the doors, so to avoid calibration changes.

7) Now the booth is ready to be tested (this must to be carried out by authorized staff only) and ready for use.

Testing

Once tested, verify:
- Control that the console is working.
- Metal detector alarm.
- CE release button.
- Photoelectric cells working.
- Check door's movements.
- Check the automatic reset.
- Check the signal lights.

For settings different from those pre-set, ask Saima Sicurezza S.p.A. for the technical handbooks.

Deactivation and setting aside

If the booth is not used for a long time, it is necessary to disconnect the power supply cable and the batteries.

We exhort the operator to put away the booth in a dry and sheltered place and to insulate every component from the floor and walls.

REMEMBER THAT ONLY SKILLED AND AUTHORIZED STAFF CAN DISASSEMBLE THE SYSTEM.

MAINTENANCE
System handbook

Check the following every six months:

TYPE OF CHECK	CHECK DESCRIPTION
Electronic exchange	Check there are no liquids filtered through Check there are on over-heated parts Check the leds of the exchange
Control console	Check the commutators Check the buttons Check the leds Check and set, if necessary, the volume of the intercom
Metal Detector	Tests with people's transit without metal objects and with metal objects comparable to a gun mass.
Push-button panels and roof lamp	Check the light signals Check the opening buttons and the bell
Accident prevention	Adjustment of the end-strok, open and closed doors Emergency release tests Check the maximum pair Check the sensitivity of the accident prevention sensors
Motorization	Check the cleaning condition of the slides and wheels Check that screw bolts of the wheels and belts are tightened Check the clearances on the mobile parts in static condition
Clearances on the mobile parts in dynamic conditions	Check the motor and cinematic noise Check the sliding surface and the wear conditions of the carriages wheels Check the conditions of the moving cables
Weighing system	Check there is no contact between the internal floor and the external or lateral floors Check the person's weight, zero setting response with tolerance $\pm$ 3 Kg.
Object check system in the booth	Check the detection of a metal object left inside the booth: on the ground, on the sides and on the ceiling.
Automatic power supply	Check the batteries and their possible replacement Check the working of the system without power supply net (only the internal lamp of the booth must rest put off)

N.B. This handbook is an integral part of the system and it must be kept close to the booth.

Maintenance card

List of periodic checks carried out according to the procedures previously described.

Date	Technician	Signature	Next check	Notes

N.B.: This handbook is an integral part of the system and it must be kept close to the booth.

Equipment on request

- *M.D. - Metal Detector equipped with small studs, with a rectangular or circular section integrated in the structure.*
- *Voice synthesis with more messages in many languages.*
- *Internal micro-camera.*
- *Badge reader.*
- *Electric keys.*
- *Electronic keys.*
- *Remote opening radar.*
- *Interface electronic card with emergency exit (push door).*
- *Electronic card to manage the Self-service area.*
- *Holding frame for the embedding floor.*
- *Thermoform finishing frame for the embedding floor.*

Labels

entrance	stick on the glass of the entrance door
exit	stick on the glass of the exit door
NOT WALKABLE	stick on the roof of the booth
> > > > > > > > >	stick on the door's glasses make them visible
external side	remove when installing
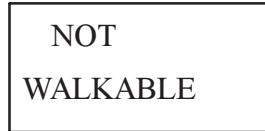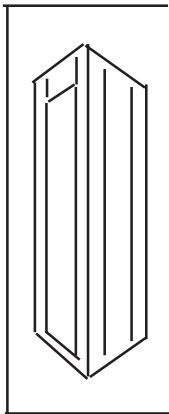
to apply with the metal detector placed towards the opening button

FOR THE SAFETY OF THE KIND CUSTOMERS, THE ACCESS DOORS ARE EQUIPPED WITH METAL DETECTOR. SO IF THERE ARE METAL MASSES, THEY WILL BLOCK. PLEASE DEPOSIT ALL METAL OBJECTS IN THE BOX.
WE INFORM CUSTOMERS WITH PACEMAKERS THAT THE METAL DETECTOR IS HARMLESS.

Enter one at a time   apply on the booth equipped with weight check
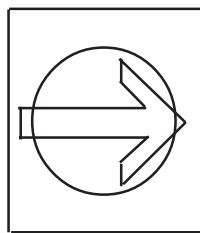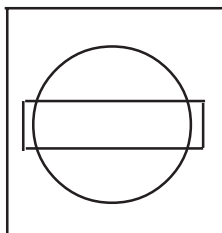
These labels must be applied on the booth to give directions.

Operating 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) Call Saima's 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).

GRAPHIC REPRESENTATIONS

FIGURE 1A SERIAL CONTROL CONSOLE
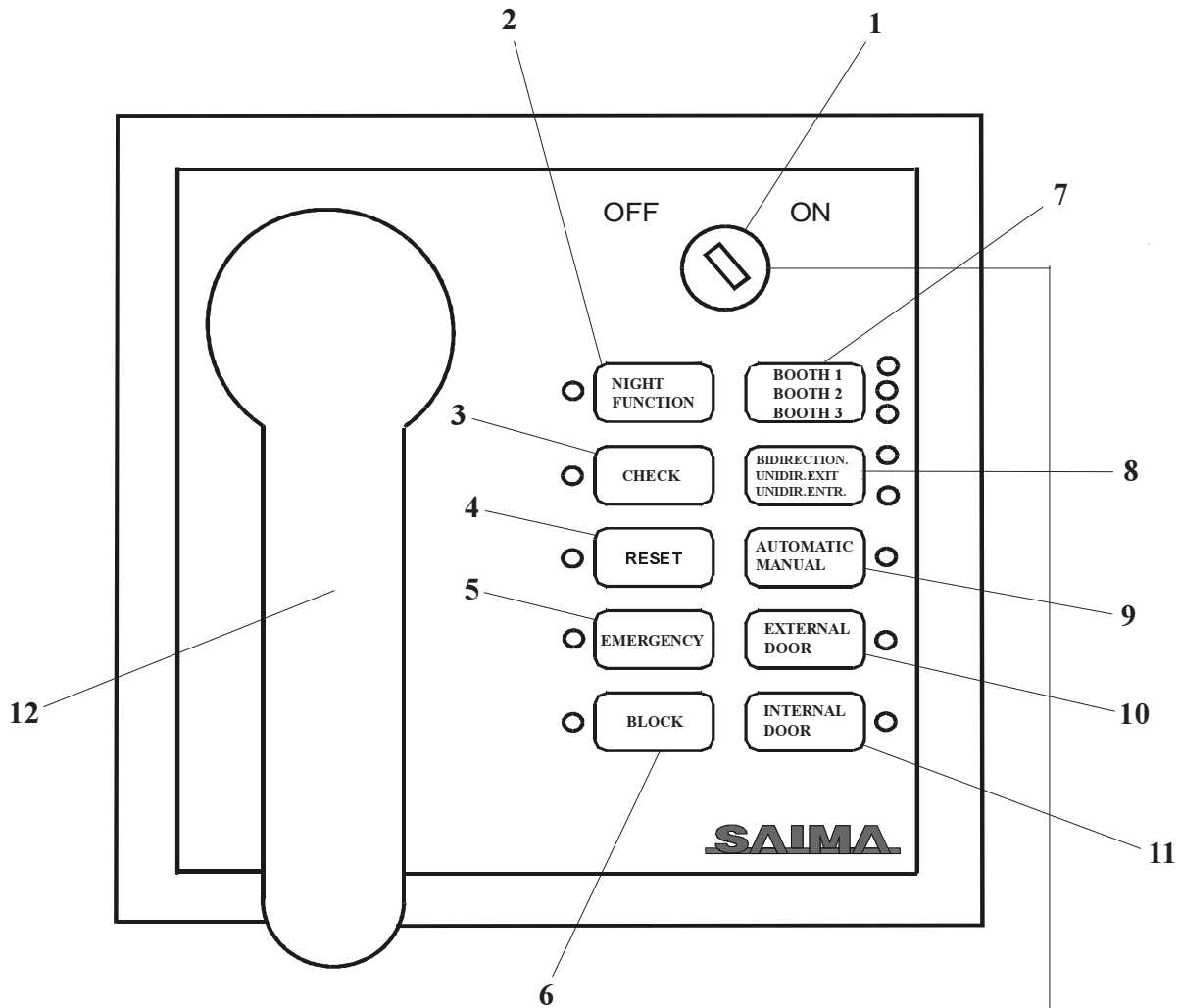
1 - ON/OFF key to enable the console
2 - Starting - Night function
3 - Check (Metal Detector)
4 - Reset
5 - Emergency
6 - Block
7 - Booth1, booth 2, booth 3
8 - Bidirectional/unidirectional exit/unidirectional entrance
9 - Automatic/Manual
10 - External door
11 - Internal door
12 - Intercom handset

CONSOLE OPERATING KEY

ON- *Console enabled*

OFF- *Only the functions "Manual working" and "Reset for one passage are enabled*

FIGURE 1B DIGITAL CONTROL CONSOLE

CONSOLE OPERATING KEY

ON - Console enabled
OFF - Only the manual working and the reset for one passage are enabled
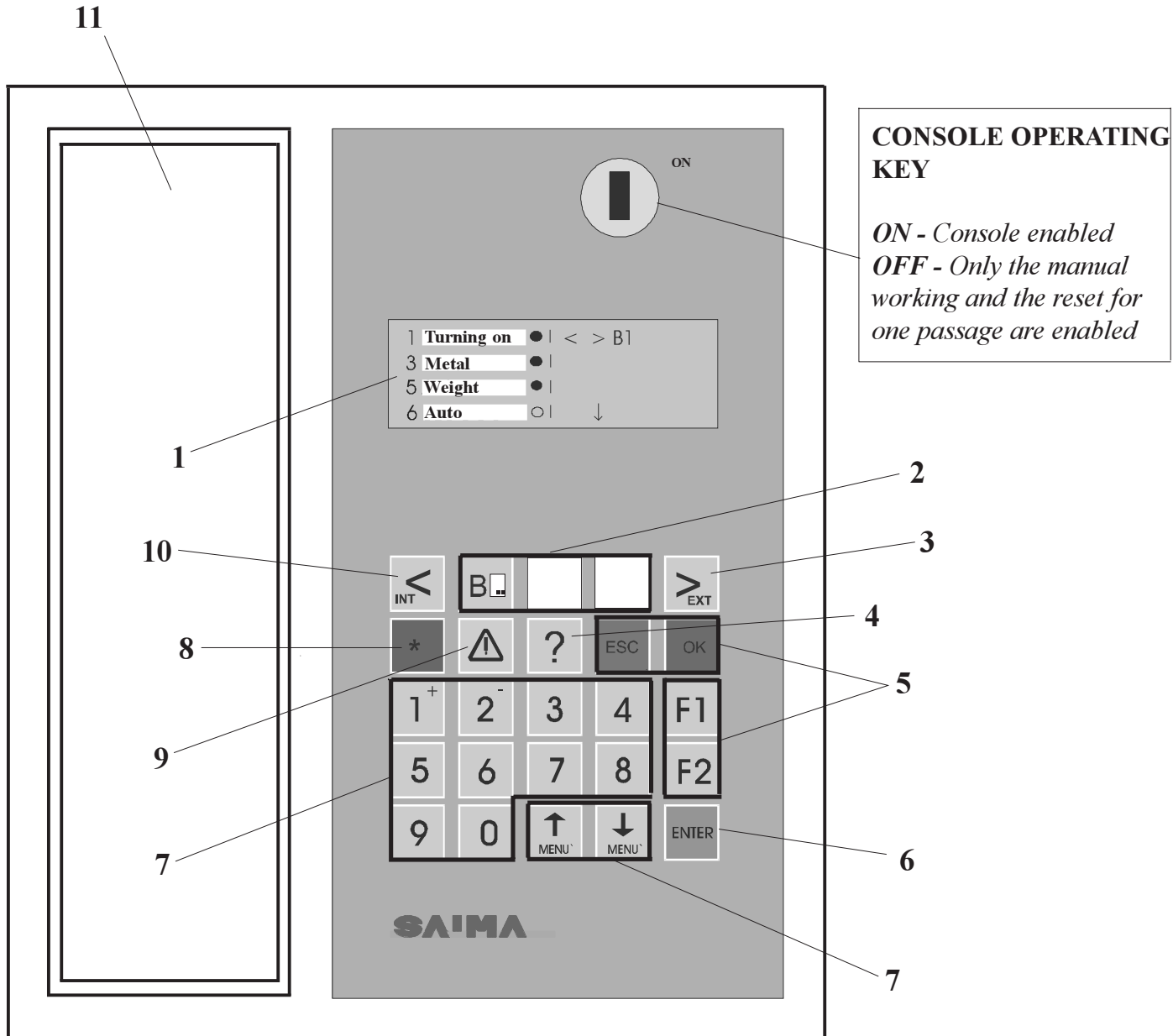
1 - Display
2 - Selection of the booth B
3 - Manual opening of the external door
4 - Multifunction key
5 - Setup keys
6 - Reset
7 - Shifting of the function menu
8 - Emergency
9 - CE release
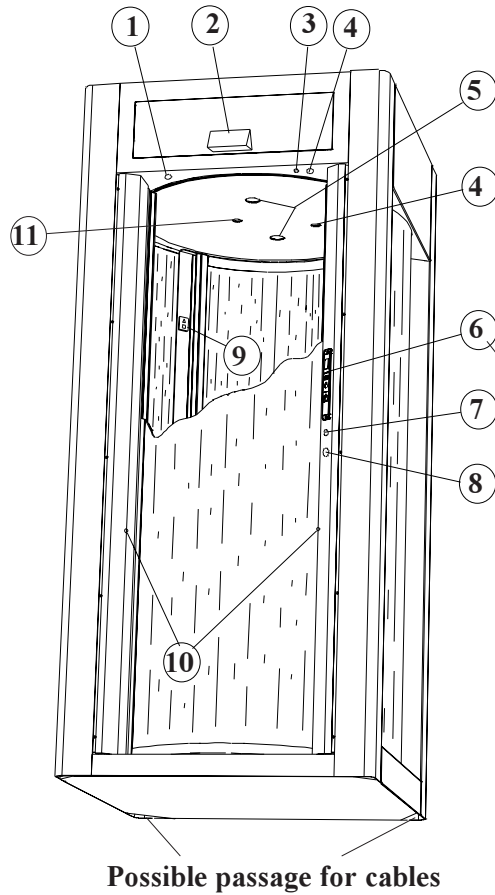10 - Manual opening of the internal door
11- Intercom handset.

FIGURE 2 EXTERNAL SIDE VIEW OF THE 4 DOORS MINISUN
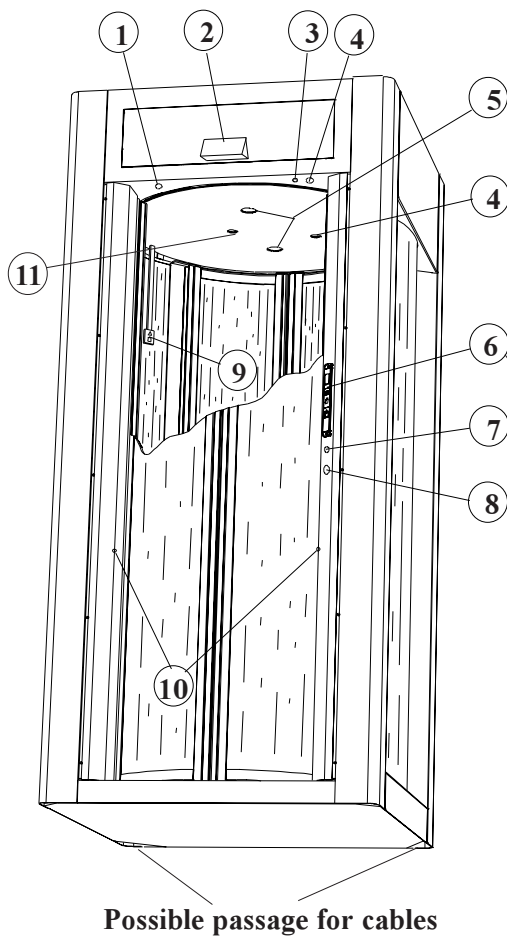
1) -mechanic lock
2) -radar (optional)
3) -electric key (optional)
4) -loudspeaker
5) -small light
6) -external push-button panel
7) -electric key (optional)
8) -badge reader (optional)
9) -stop button and intercom emergency call
10) -RX (left)-TX(right) photocells
11) -intercom (optional)

Possible passage for cables

FIGURE 3 EXTERNAL PUSH-BUTTON PANEL

intercom function led

intercom button

red : manual
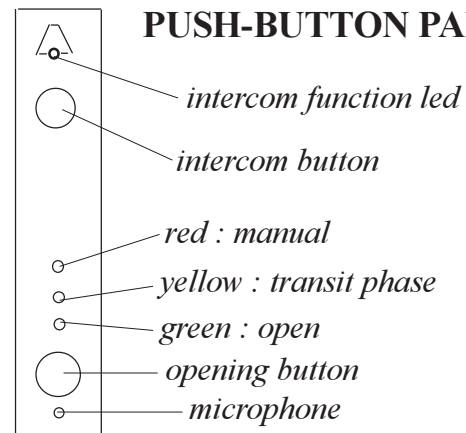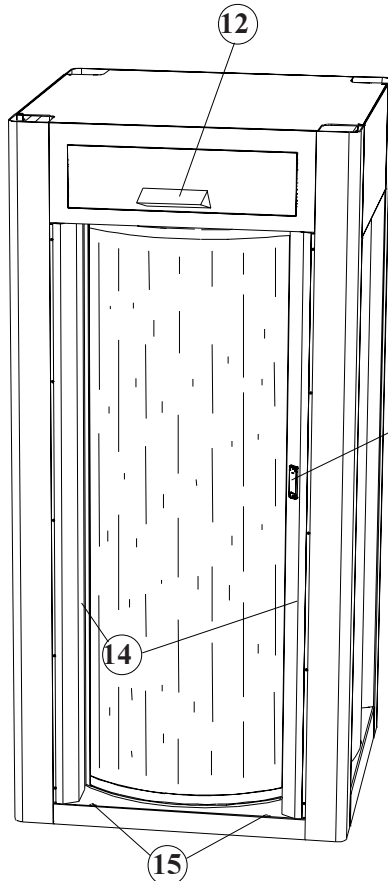*yellow : transit phase*
green : open
opening button
microphone
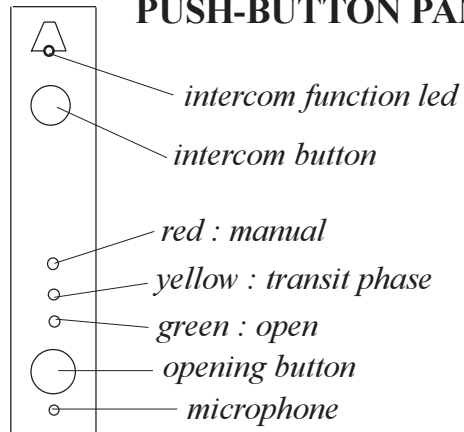
FIGURE 4 INTERNAL SIDE VIEW OF THE 4 DOORS MINISUN
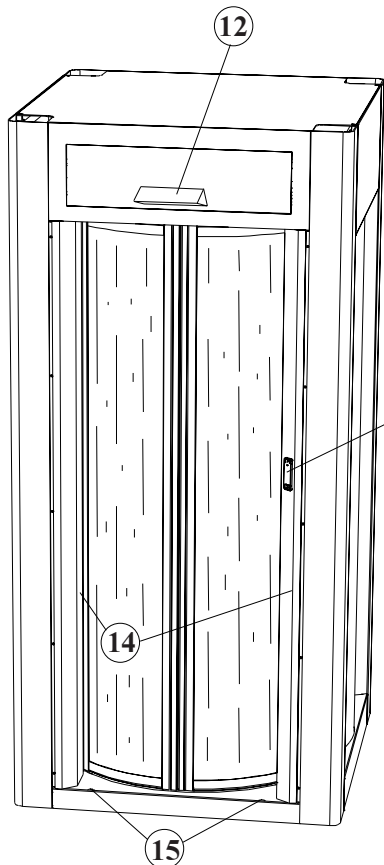
12)-radar (optional)
13)-internal push-button panel
14)-RX(left)-TX(right) photocells
15)- fastening screws (n°2 int+n°2 ext)

### FIGURE 5 INTERNAL PUSH-BUTTON PANEL

red : manual
yellow : transit phase
green : open

opening button

30
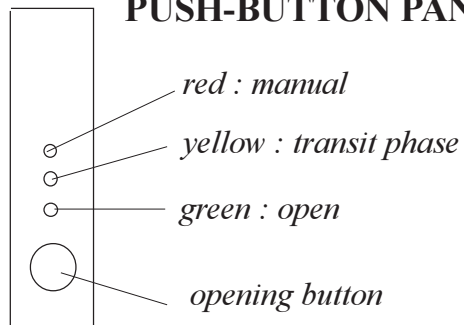
FIGURE 6 EXTERNAL SIDE VIEW OF THE 2 DOORS MINISUN

1) -mechanic lock
2) -radar (optional)
3) -electric key (optional)
4) -loudspeaker
5) -small light
6) -external push-button panel
7) -electric key (optional)
8) -badge reader (optional)
9) -stop button and intercom emergency call
10) -RX (left)-TX(right) photocells
11) -intercom (optional)

Possible passage for cables

FIGURE 3 EXTERNAL PUSH-BUTTON PANEL

intercom function led
intercom button
red : manual
yellow : transit phase
green : open
opening button
microphone

FIGURE 7 INTERNAL SIDE VIEW OF THE 2 DOORS MINISUN

12)-radar (optional)
13)-internal push-button panel
14)-RX(left)-TX(right) photocells
15)- fastening screws (n°2 int+n°2 ext)

FIGURE 5 INTERNAL PUSH-BUTTON PANEL

red : manual
yellow : transit phase
green : open
opening button

31
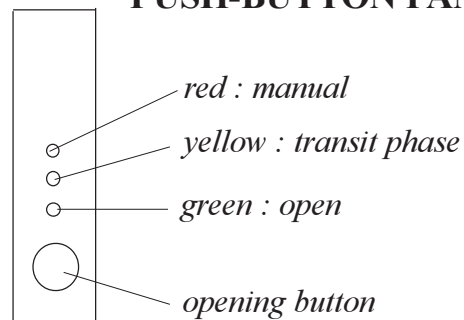
FIGURES 8-9 TECHNICAL SPECIFICATIONS

Minisun with 4 doors   ## Minisun with 2 doors
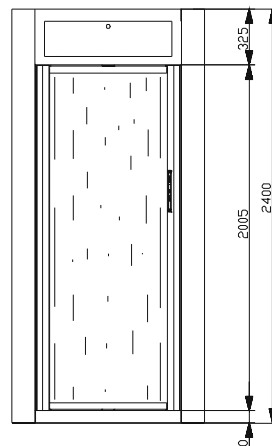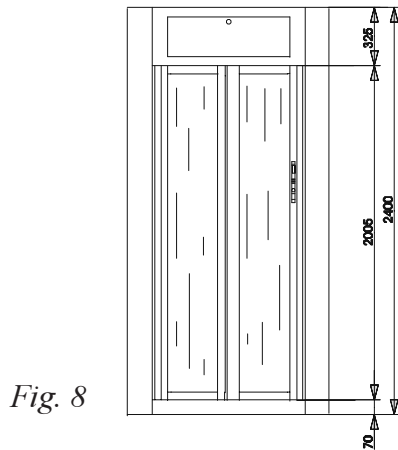
Fig. 8

Standard version with on-line
entrance and exit
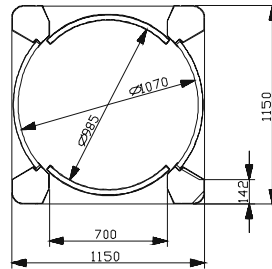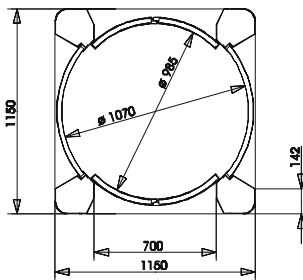Upon request : - right exit at 90°
                - left exit at 90°

Fig. 9

Electric system

Power supply voltage :	_220± 10%V - 50Hz_
Maximum absorbed power :	_0,2 KW_
Batteries :	_n°2- 2Ah 12V airtight lead in series_
Inputs and outputs :	_20 + 16_
Lines :	_n°3 RS232 (+ n°1 RS232 Reserved) - n°2 RS 485_
Motors :	_n° 2 - 24 VDC - 65W_
Management logic :	_planning by a multiprocessor unit_
Autonomy without net:	_60 minutes with 200 passagges_
Autonomy without net, with M.D. on:	_25 minutes with 200 passagges_

Structure

Frame:	_it is made of tubes of 40/10 mm press-bent steel sheet_
Plugging structures:	_flat and bent stratified glass (8+10+8- PVB0.76x2)_
Varnishing:	_Polyurethane with epoxy base thin embossed_

Performances

Reset type:	_Automatic_
Transit speed:	_6/9 passages per minute_
Working temperature:	_-10 °C / +55°C_

Dimensions and weight

Dimensions:	_Height_	_2400 mm_
	Length	_1150 mm_
	Width	_1150 mm_
Transit dimensions:	_Height_	_2000 mm_
	Width	_650 mm_
Weight :	_850 Kg_	

FIGURES 10A-10B BOOTH MOVEMENTS
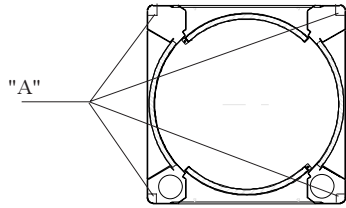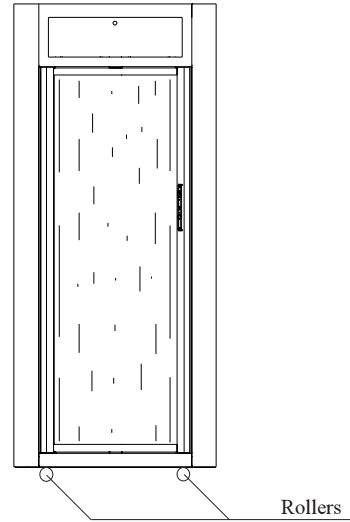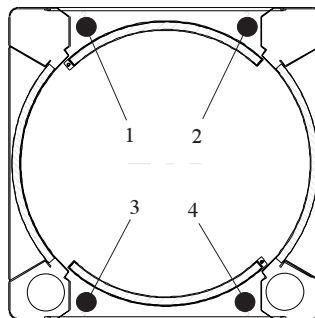
"A"

Fig. 10A

Fig. 10B

Rollers

FIGURE 11 STOPPING FEET

1 2

3 4

FIGURE 12 EMBEDDED INSTALLATION

Holes for the passage of cables

We suggest to keep these
holes in correspondence of
the internal side

A

A

1170 x 1170 mm

70

100

External

FIGURE 13 LATERAL FRAMES APPLICATION
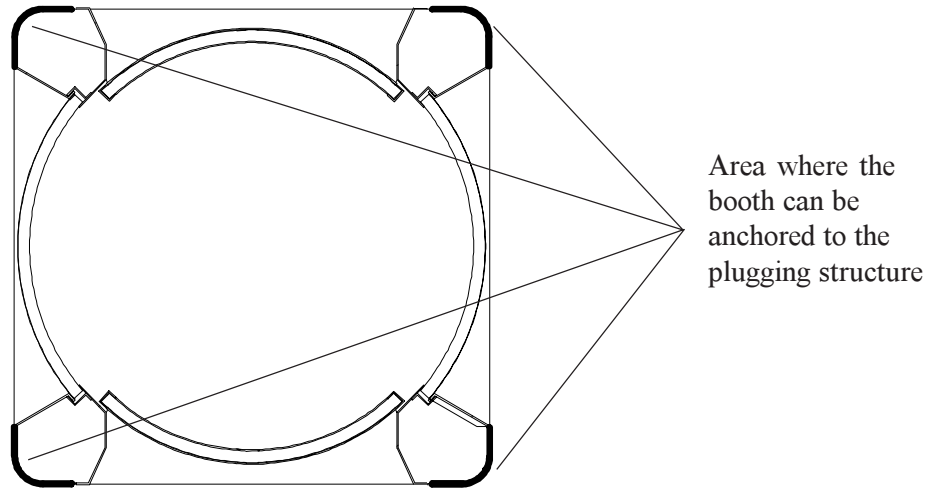

Area where the booth can be anchored to the plugging structure
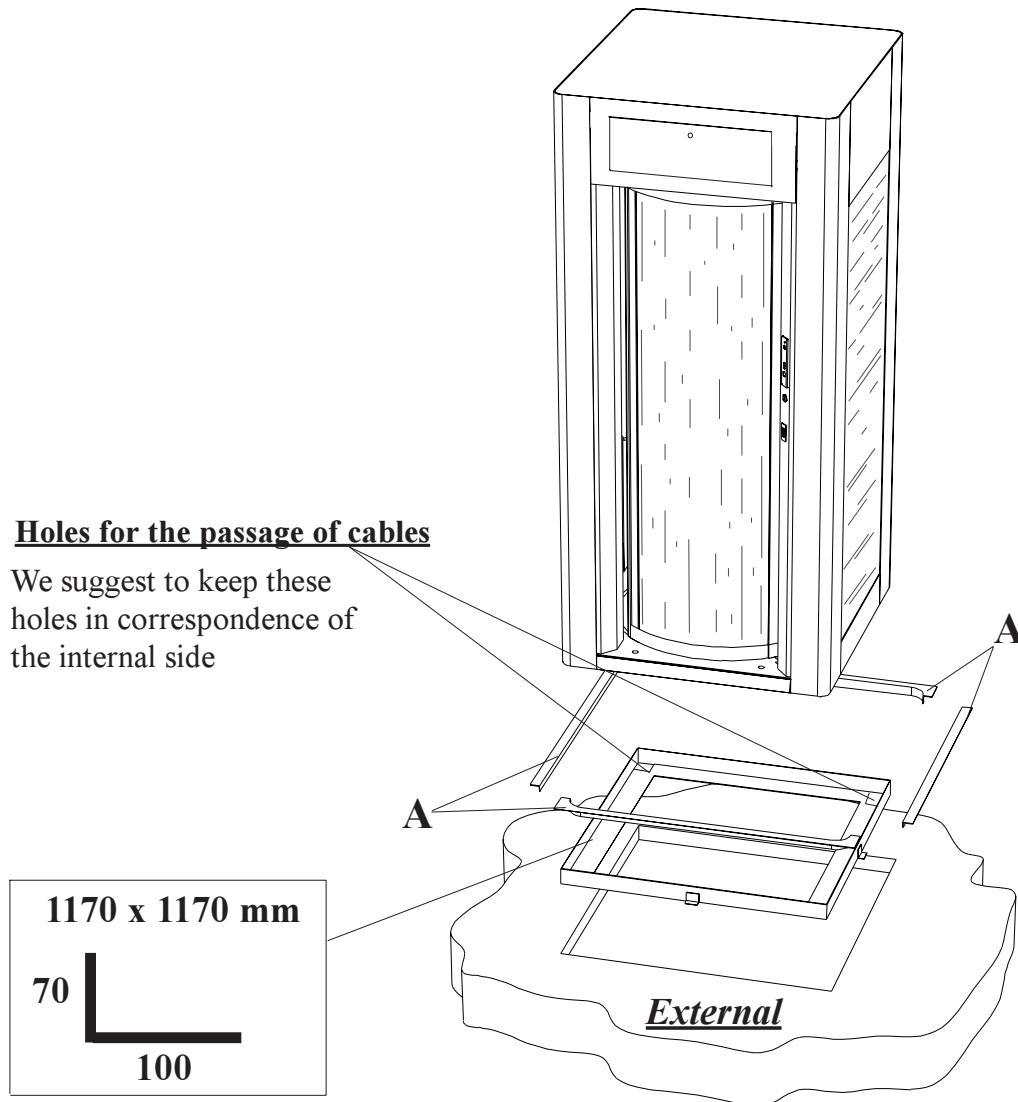
FIGURE 14 EXAMPLES OF INSTALLATION

FIGURE 15 WIRING

DIFFERENTIAL GEAR 0,03A + N.3 OUTLETS

N.1 CABLE 3 x 2,5 mm

Ø32

Ø32

220V + T

GROUNDING
CONNECTION
STRUCTURE

2400

1050

N.1 MULTIPOLAR CABLE

entrance

BOOTH
CONSOLE