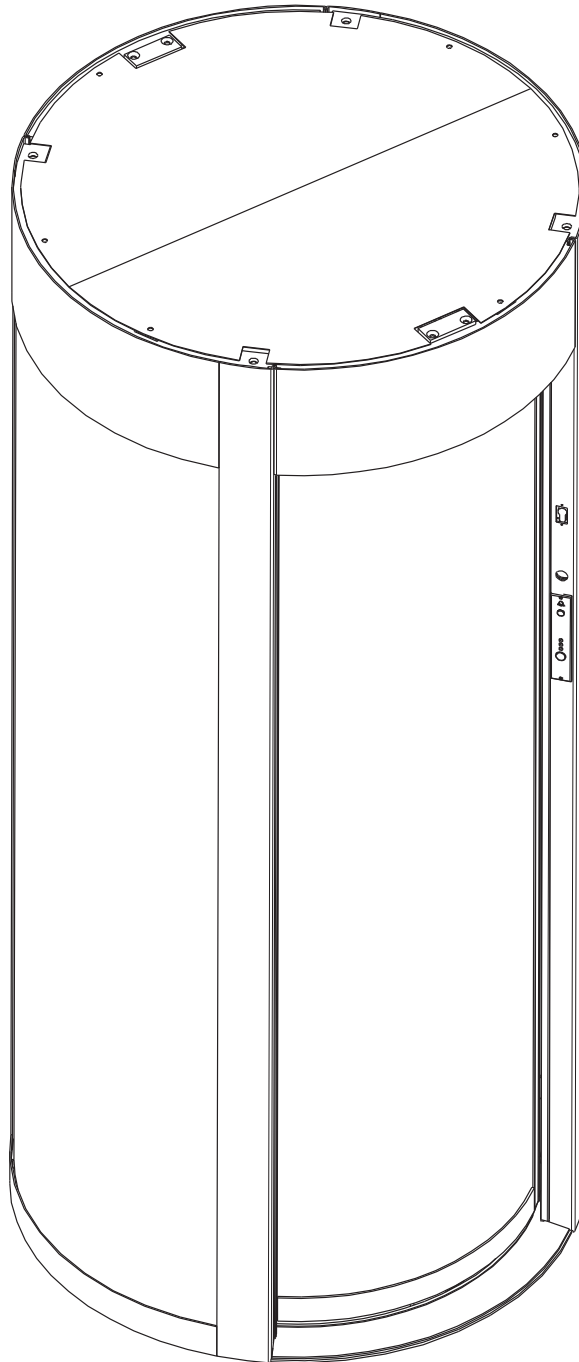


CL 635

AS AUTOMATIC
SYSTEMS

Access controlled...
Future secured

ClearLock



TECHNICAL MANUAL

[Translation to the original French version]

Rev. 00

www.automatic-systems.com



DOCUMENT REVISION

Rev	Date	Written	Checked by	Nature of revision
00	2017-05-03	Slu	SDA-ABA	Initial edition.

TABLE OF CONTENTS

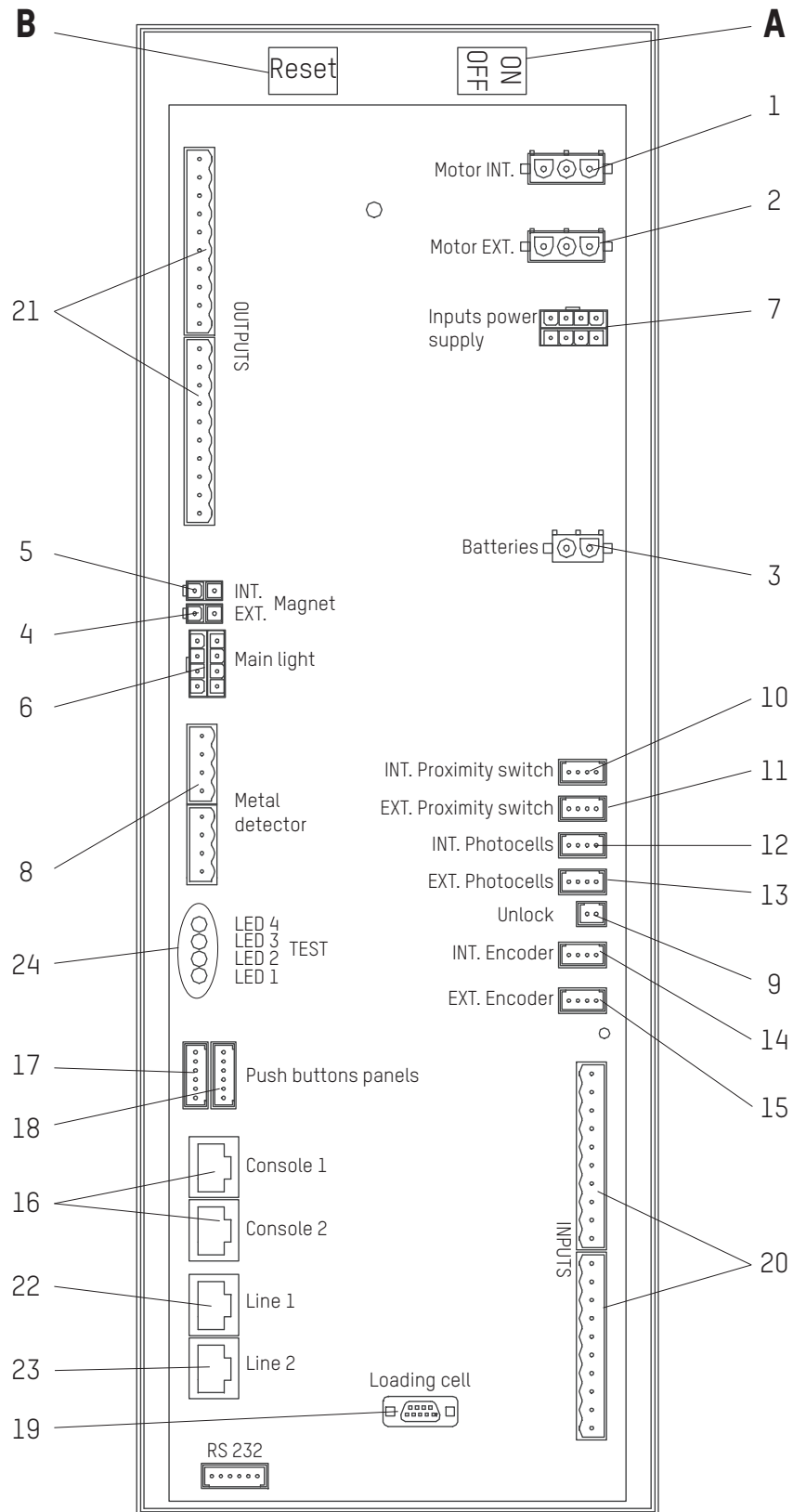
1.	SAFETY WARNINGS	4
2.	ELECTRONIC MAIN BOARD	5
2.1.	CONNECTION TO THE ELECTRONIC CONTROL BOARD	6
2.2.	BLOCK DIAGRAM	7
2.3.	POWER SUPPLY	8
2.3.1.	Front view	8
2.3.2.	Back view	8
2.4.	CONNEXIONS À L'UNITÉ DE CONTRÔLE ÉLECTRONIQUE	9
2.4.1.	Internal door motor	9
2.4.2.	External door motor	9
2.4.3.	Batteries	9
2.4.4.	Internal magnet	9
2.4.5.	External magnet	10
2.4.6.	Ceiling light	10
2.4.7.	Power supply	10
2.4.8.	Metal detector	11
2.4.9.	Internal limit switch	11
2.4.10.	External limit switch	11
2.4.11.	Internal accident prevention cell	11
2.4.12.	External accident prevention cell	12
2.4.13.	Internal Encoder	12
2.4.14.	External Encoder	12
2.4.15.	Main console	12
2.4.16.	Internal push button panel	13
2.4.17.	External push button panel	13
2.4.18.	Loading cell	13
2.4.19.	Inputs	14
2.4.20.	Outputs	14
2.4.21.	Network 1 (SUN system, where needed)	15
2.4.22.	Network 2 (metal detector, with digital console)	15
2.4.23.	LED self analysis	15
2.5.	WEIGHT SYSTEM CONNECTION DIAGRAM	15
2.6.	AUXILIARY BOARD I/O 315 CONNECTIONS	16
2.7.	EQ-34 SENSOR ADJUSTMENT	17
3.	DIAGNOSTIC ET PROGRAMMATION	18
3.1.	COMPUTER CONNECTION DIAGRAM – MAIN BOARD	19
3.2.	COMPUTER CONNECTION DIAGRAM – METAL DETECTOR	19



1. SAFETY WARNINGS

- This manual must be made available to any person who works with the equipment, e.g., installers, maintenance technicians, end users, etc.
- This equipment has been designed to control and manage pedestrian access and flow and cannot be applied to any other use without risk to users or to the integrity of the equipment.
- **Automatic Systems** cannot be held responsible for damages caused by improper use of the equipment.
- It is strongly recommended that children be supervised as they pass through the door.
- Extreme care is also required with animals, which should be kept on a leash and under the control of their owners.
- Do not add non-approved accessories (contact between different metals causes an electrolytic effect that decreases the equipment's corrosion resistance or a malfunction of the metal detector).
- The Contractor shall comply with local standards when installing the equipment
- Any work on the equipment must be performed by qualified personnel. **Automatic Systems** shall reserve the full right to automatically refuse our warranty if any unauthorized work or work performed by an unqualified technician is performed on this product.
- Access to the mechanism is reserved for personnel who are aware of the electrical and mechanical dangers in the case of negligent operation. This personnel is obliged to close off access to the mechanical equipment after completing any work.
- For any operation that does not require the equipment to be powered on, disconnect the electrical power using the **SYSTEM** switch on the console to **OFF** (or open the breaker on the client distribution panel) **AND** disconnect the batteries.
- Any internal element that may be live or that could move should be handled with caution.
- The equipment is factory configured in **minimal risk** mode for its users. Parameters should only be changed by qualified personnel with full knowledge of the consequences, and this shall in no way entail any liability on the part of **Automatic Systems**.
- The equipment must be completely visible to the user/operator before being put into operation.
- After a collision, even if there is no visible damage, the equipment must be checked by a qualified technician.

2. ELECTRONIC MAIN BOARD





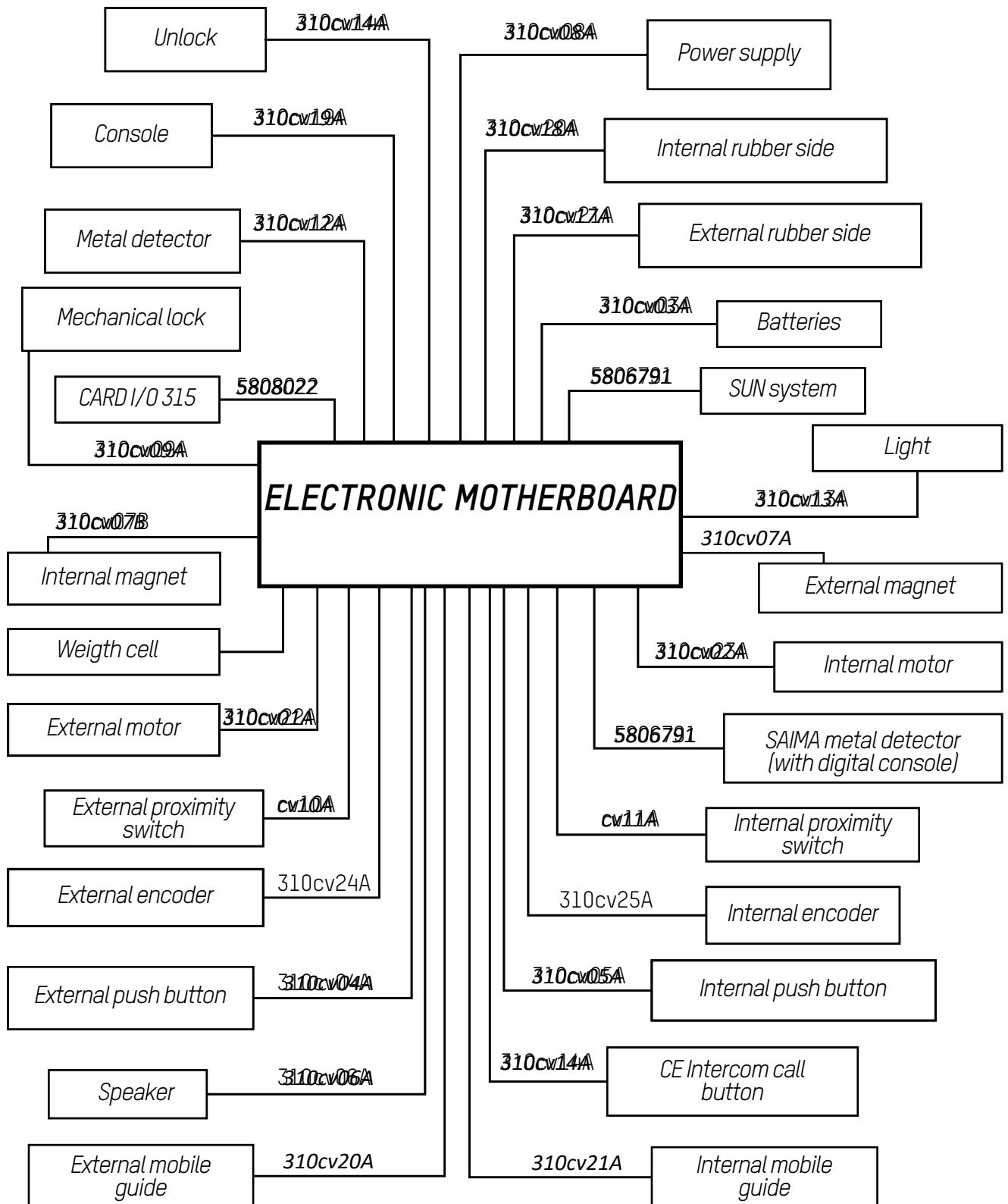
2.1. CONNECTION TO THE ELECTRONIC CONTROL BOARD

A - Booth's ON/OFF switch.

B - On switch emergency batteries after discharge.

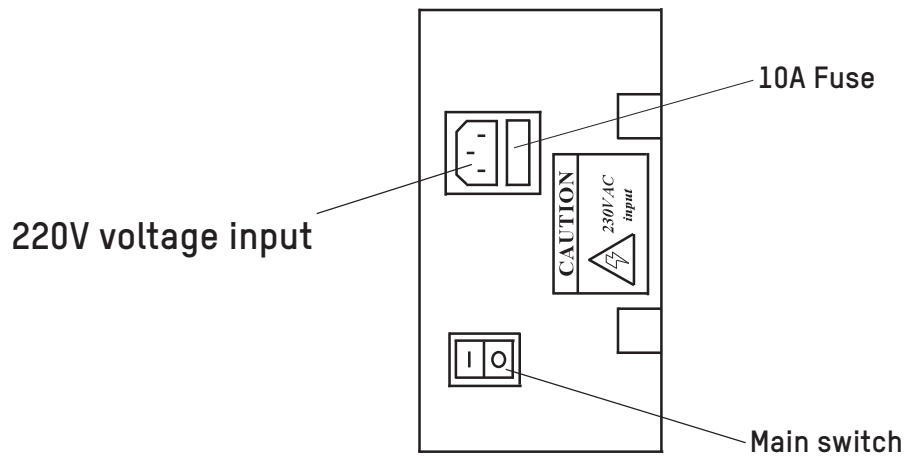
1. Connection with cable cv02A to door's internal motor.
2. Connection with cable cv01A to door's external motor.
3. Connection with cable cv03B to emergency batteries.
4. Connection with cable cv07B to the internal door unlock magnet during an emergency.
5. Connection with cable cv07A to the external door unlock magnet during an emergency.
6. Connection with cable cv06A to the vocal message speaker.
 - Connection with cable cv13A lamp.
 - Connection with cable cv 14A to the intercom's call button CE.
7. Connection with cable cv08A to the power supply.
8. Connection with cable cv12A the metal detector's electronic control.
9. Connection with cable cv14A to the emergency call button CE.
10. Connection with cable cv11A to the internal proximity.
11. Connection with cable cv10A to the external proximity.
12. Connection with cable cv17A to the contact for the external rubber side.
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 ON bridge
 - clamps 4 and 7 emergency button of CE panel.
 - clamps 4 and 10 connection to the internal mechanical lock.
 - clamps 11 and 12 connection with cable cv09A to the external mechanical lock
 - clamps 15 and 20 on first entrance bridge.
21. Outputs connections.
22. Connection with cable 5806791 to the SUN system (only booth's with SUN system).
23. Connection with cable 5806791 to the Automatic Systems Metal Detector with digital console.
24. Led self analysis.

2.2. BLOCK DIAGRAM

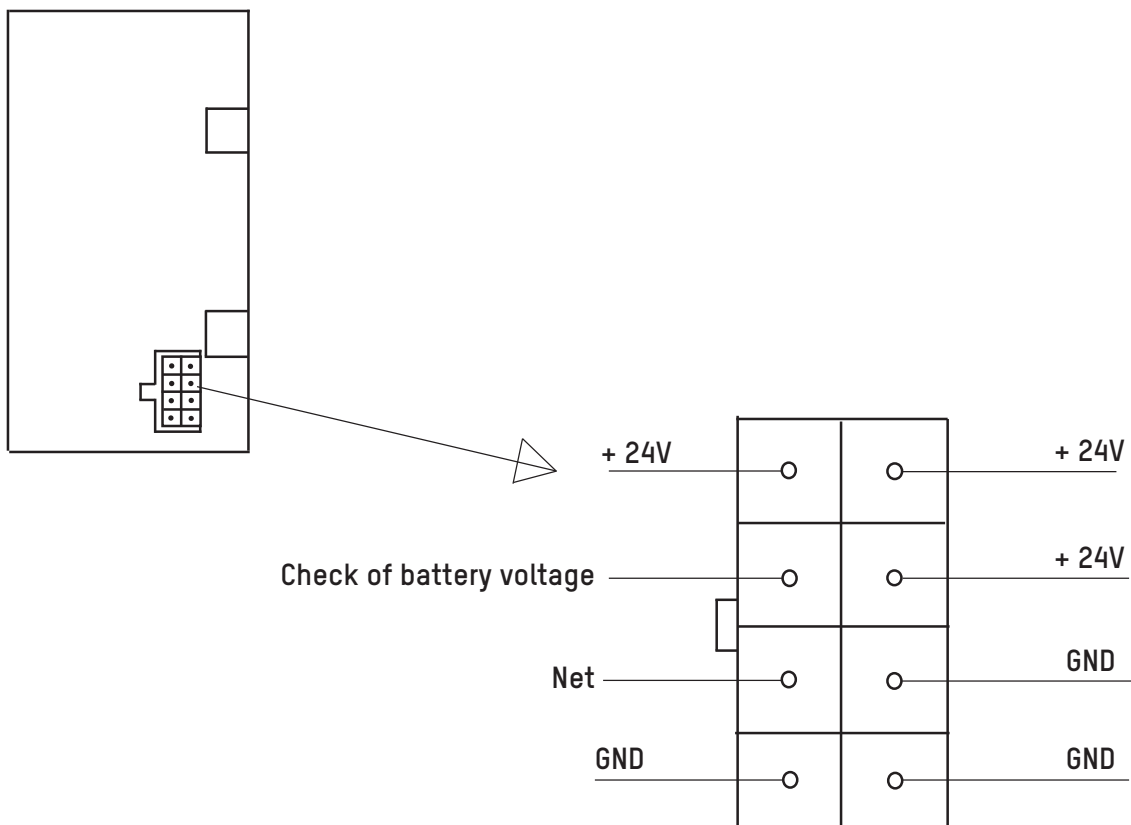


2.3. POWER SUPPLY

2.3.1. Front view

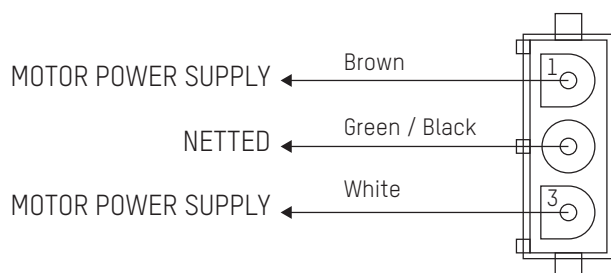


2.3.2. Back view

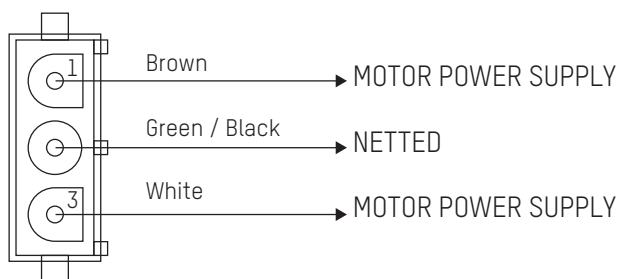


2.4. CONNEXIONS À L'UNITÉ DE CONTRÔLE ÉLECTRONIQUE

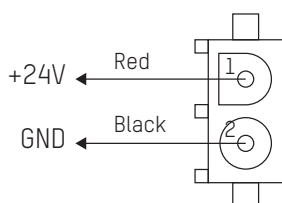
2.4.1. Internal door motor



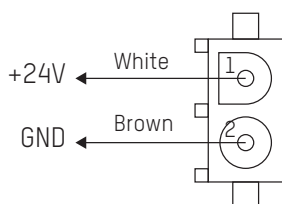
2.4.2. External door motor



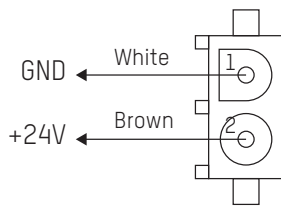
2.4.3. Batteries



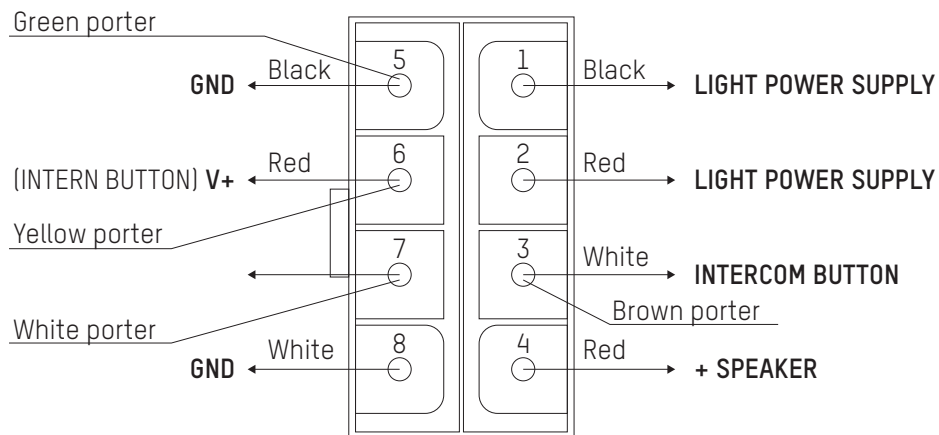
2.4.4. Internal magnet



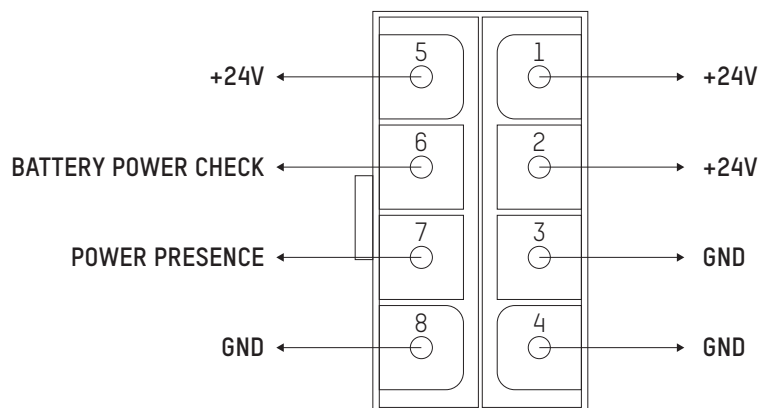
2.4.5. External magnet



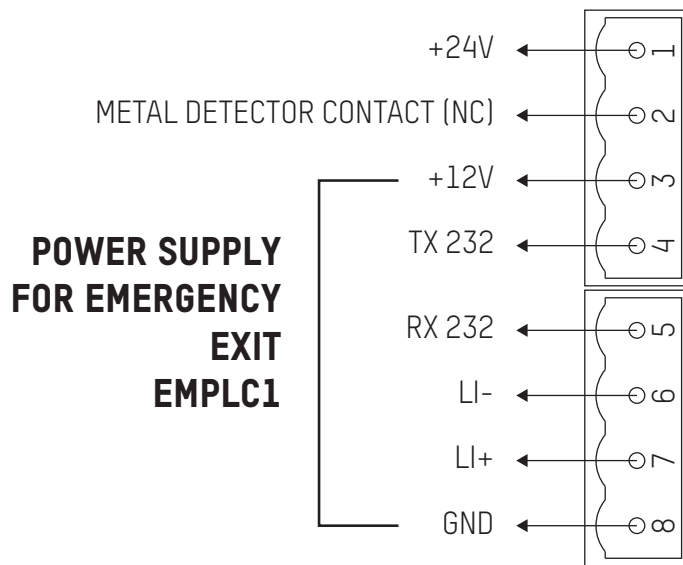
2.4.6. Ceiling light



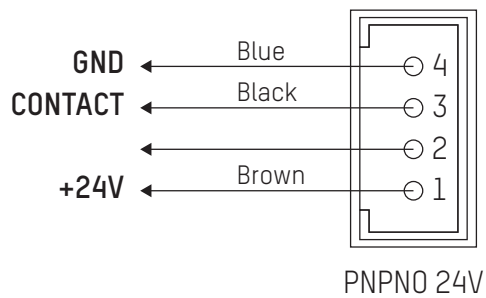
2.4.7. Power supply



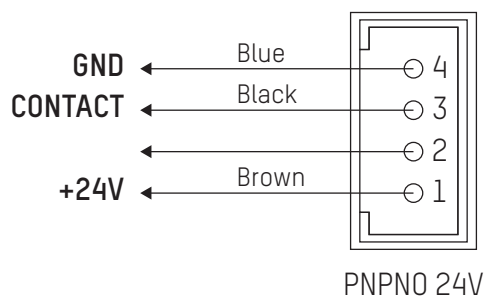
2.4.8. Metal detector



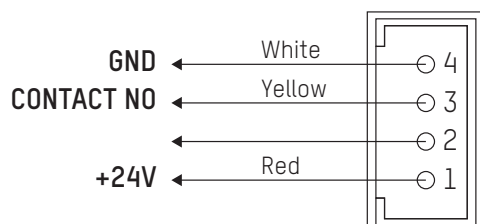
2.4.9. Internal limit switch



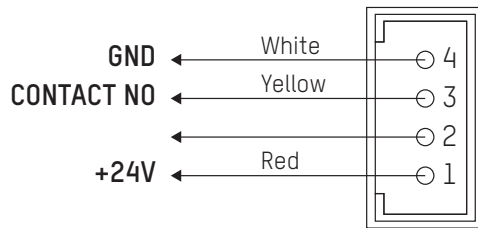
2.4.10. External limit switch



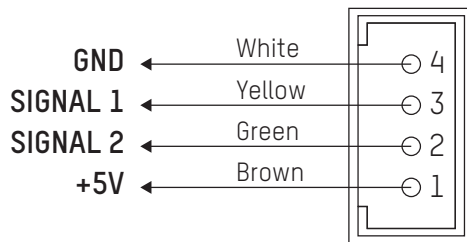
2.4.11. Internal accident prevention cell



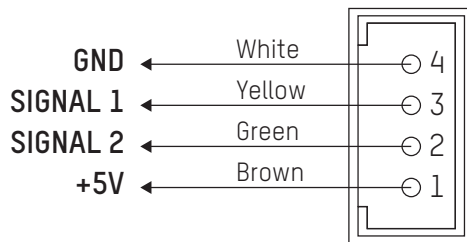
2.4.12. External accident prevention cell



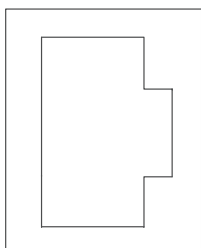
2.4.13. Internal Encoder



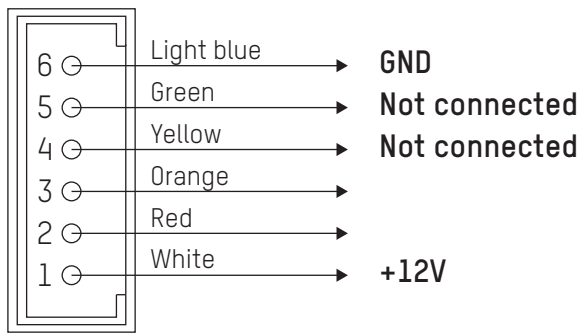
2.4.14. External Encoder



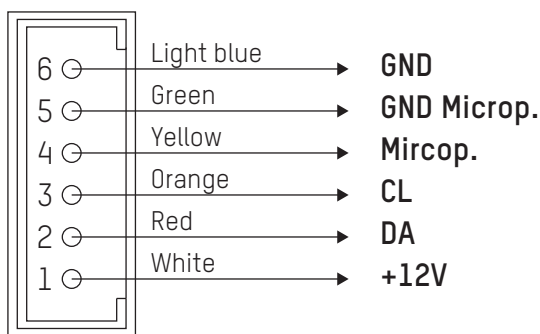
2.4.15. Main console



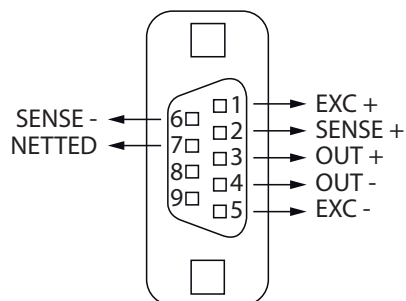
2.4.16. Internal push button panel



2.4.17. External push button panel

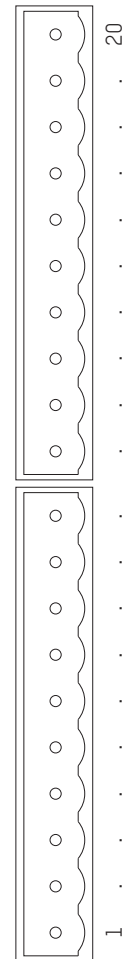


2.4.18. Loading cell



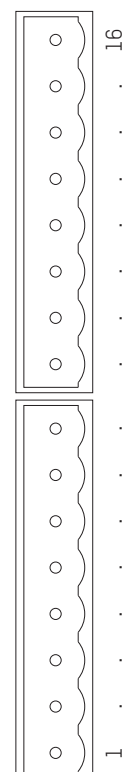
2.4.19. Inputs

N°	NAME	PREDISPOSITION
1	Input 6	ON <i>[contact NC]</i> .
2	Input 7	Person sensor.
3	+24V	ON <i>[Common]</i> .
4	GND	Unlocking.
5	+12V	Not used.
6	+12V EXT.	Photo couplers power supply.
7	Input 8	Bubber side opening.
8	Input 9	Signal External door status.
9	Input 10	Signal Internal door status.
10	Input 11	Unlocking.
11	+24V	Mechanical lock <i>[contact NC]</i> .
12	Input 0	Mechanical lock <i>[contact NO]</i> .
13	Input 1	Auxiliary metal detector alarm. <i>[See metal detector connector as well]</i>
14	+24V	First entrance key <i>[contact NC]</i> .
15	Input 2	First entrance key <i>[contact NO]</i> .
16	Input 3	Internal radar <i>[contact NO]</i> .
17	+24V	Radar <i>[Common]</i> .
18	Input 4	External radar <i>[contact NO]</i> .
19	Input 5	Post key <i>[contact NF]</i> .
20	+24V	Post key <i>[contact F]</i> .

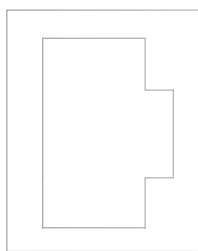


2.4.20. Outputs

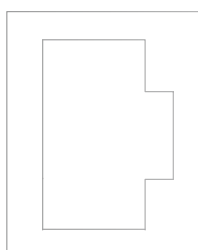
N°	NAME	PREDISPOSITION
1	GND	Internal electro-lock power supply.
2	Output 8	Internal electro-lock power supply.
3	GND	External electro-lock power supply.
4	Output 7	External electro-lock power supply.
5	GND	External electro-lock power supply
6	Output 6	Person presence.
7	GND	Not used.
8	Output 5	Night function
9	GND	Not used.
10	+12V Output	Power supply 12V protected for external use.
11	GND	Ground for external use.
12	Output 3	Not used.
13	GND	Not used.
14	+24V Output	Power supply 12V protected for external use.
15	GND	Ground for external use.
16	Output 1	Not used.



2.4.21. Network 1 (SUN system, where needed)



2.4.22. Network 2 (metal detector, with digital console)

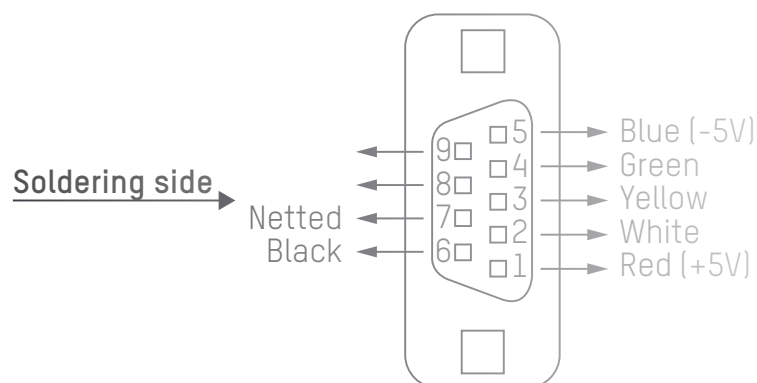


2.4.23. LED self analysis

LEDS STATUS	MEANING
LED 1 ON	Encoder error
LED 2 ON	Weight error
LEDS 1 & 2 ON	One rubber side exculded
LED 3 ON	Micro position error
LED 1 & 3ON	Encoder direction error

2.5. WEIGHT SYSTEM CONNECTION DIAGRAM

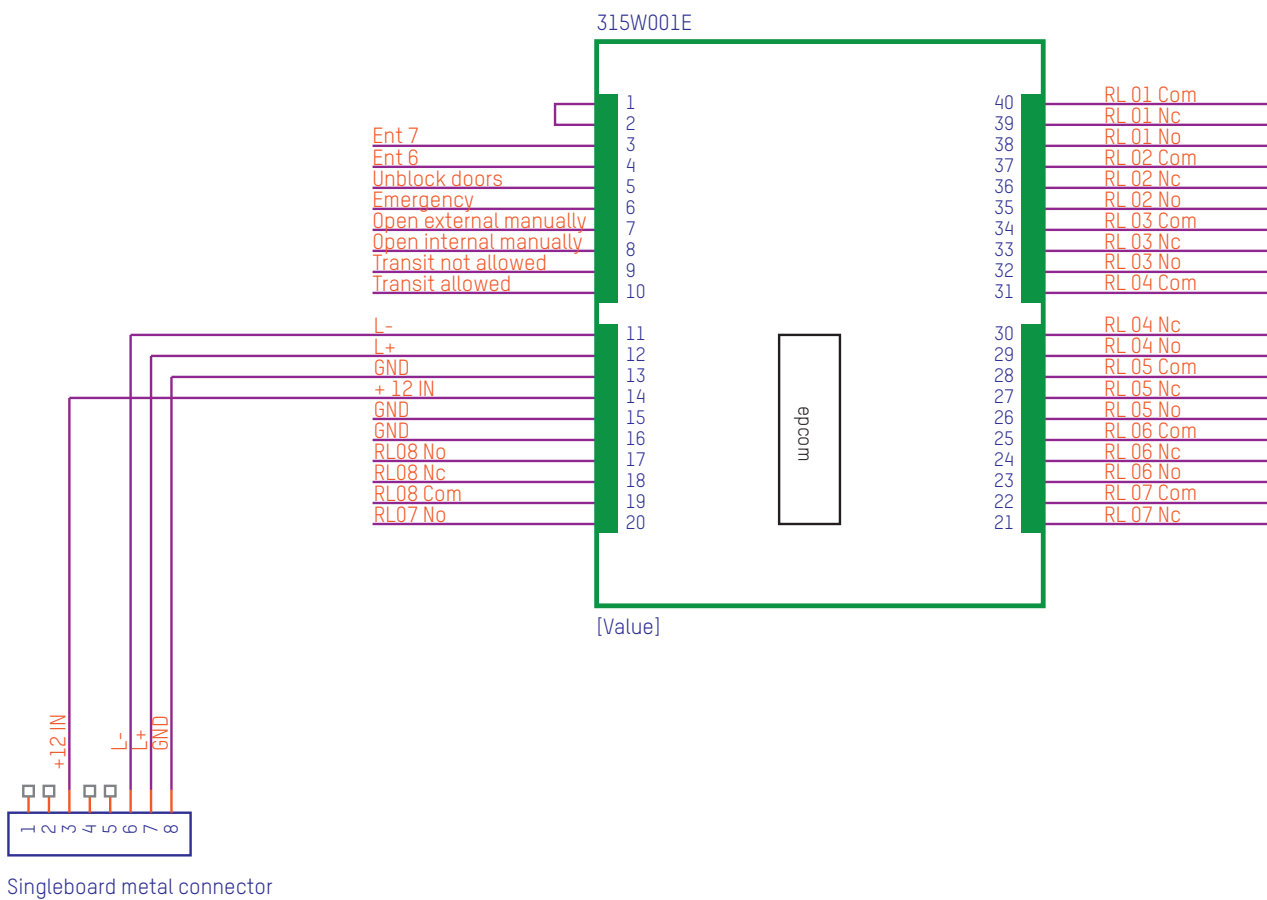
DB9 male connector that connects the weight system:



Optimal working measures

RED	➤	4 K Ω about
BLUE		
YELLOW	➤	4 K Ω about
GREEN		
RED	➤	3 K Ω aboutn
BLUE		
YELLOW	➤	3 K Ω about
GREEN		

2.6. AUXILIARY BOARD I/O 315 CONNECTIONS



Relay 01	Transit validation in entrance
Relay 02	Transit validation in exit
Relay 03	Booth contact in emergency
Relay 04	Internal door contact status
Relay 05	External door contact status
Relay 06	Excessive weight signal
Relay 07	Intercom signal

2.7. EQ-34 SENSOR ADJUSTMENT



X

The EQ-34 sensor must be adjusted (tare) with the **X** trimmer.

With the aid of a white sheet it is possible to measure the dimension of the beam which must be adjusted to a maximum of 30 cm from the ground.



3. DIAGNOSTIC ET PROGRAMMATION

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 **Automatic Systems**.

The «Power Console» program has been created to manage the **Automatic Systems** booth functions, of the «Single board» type.

This program works only with a hardware key. Should you need one, please contact **Automatic Systems** 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.

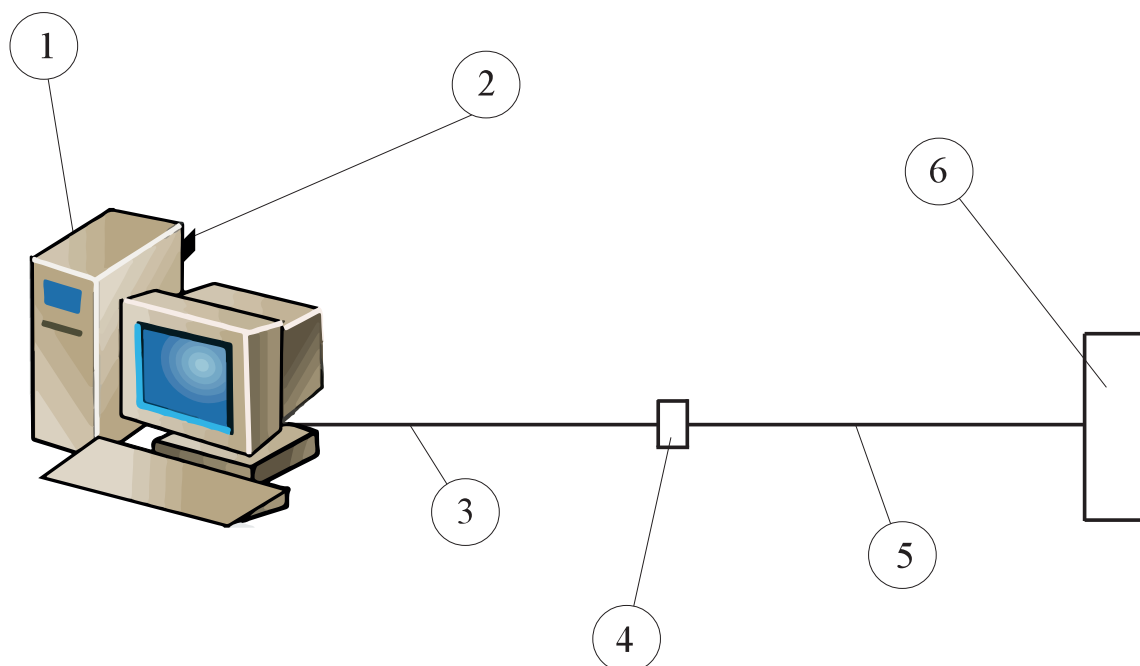
Installing the « Power Console » program

1. Click on « hdd32.exe » and choose standard installation; This will install the driver for the hardware key.
2. Install « Power Console ».

For instructions on how to use the «Power Console» software, you can request the handbook by calling **Automatic Systems** technical assistance service.

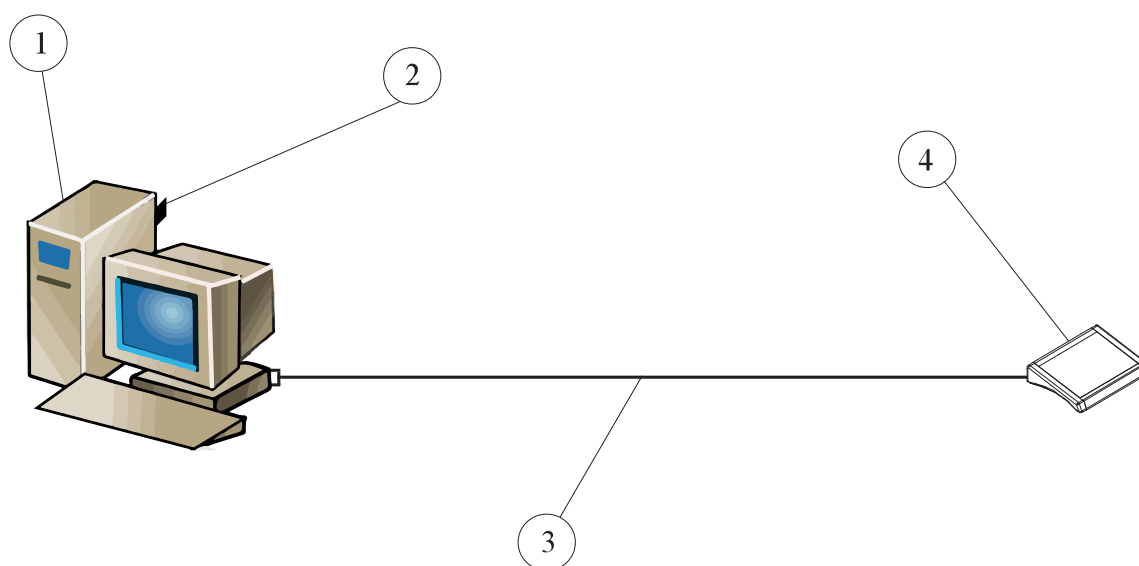
For Metal Detector maintenance or to change the parameters set by **Automatic Systems** you must request the operating manual or contact **Automatic Systems** assistance service.

3.1. COMPUTER CONNECTION DIAGRAM – MAIN BOARD



1. Personal Computer.
2. Hardware key.
3. Serial cable DB9 female, DB9 male.
4. Converter RS232 / RS485.
5. Interface cable converter – logic 8 prong plus.
6. Main board.

3.2. COMPUTER CONNECTION DIAGRAM – METAL DETECTOR



1. Personal Computer.
2. Hardware key.
3. Serial cable RS232 DB9 female, DB9 male.
4. Metal detector main board.



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