

Technical Manual
(English version)
Rev.00

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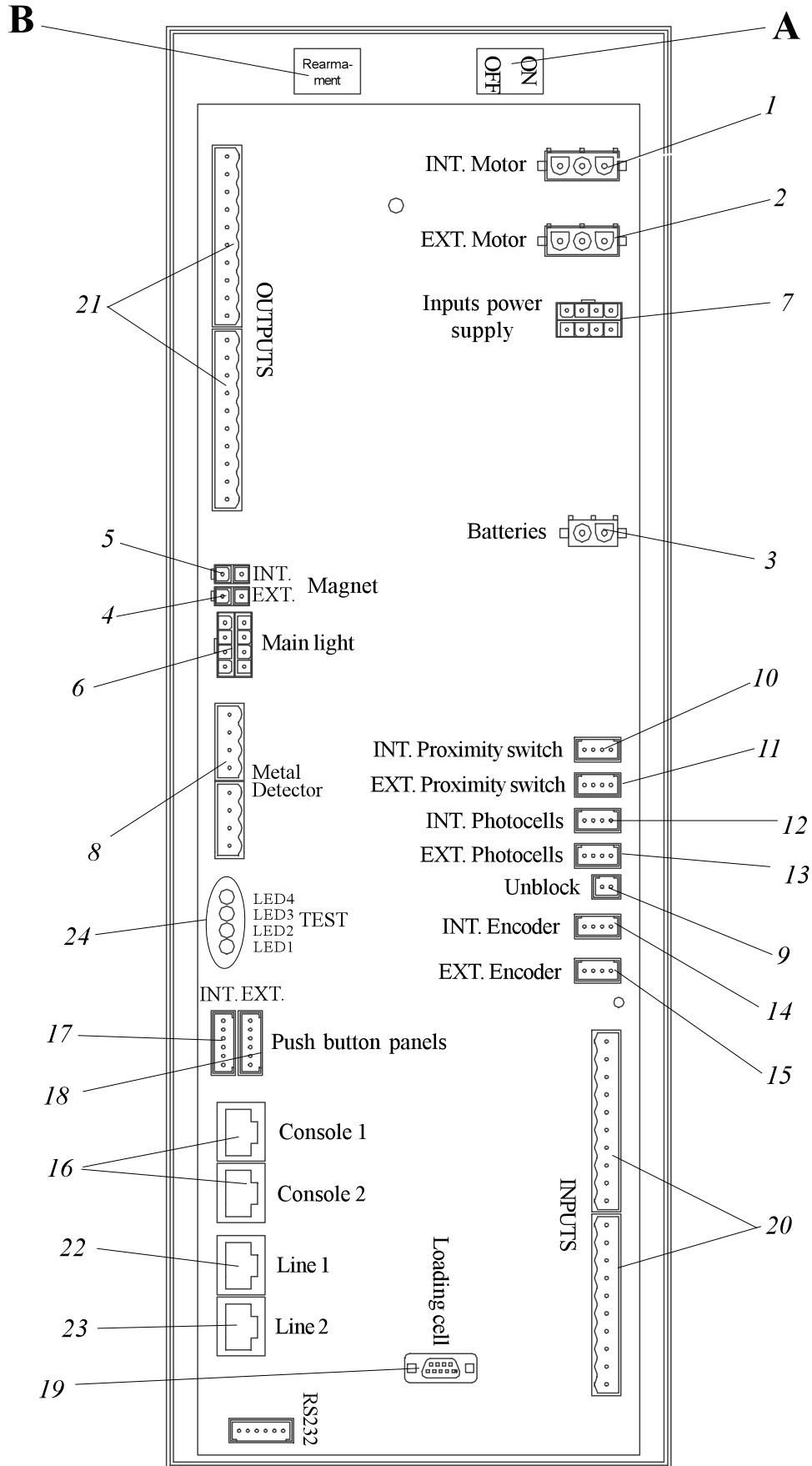
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1. SAFETY WARNINGS.

- 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 ð 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.



The information contained in this document is the property of Automatic Systems and is confidential. The recipient shall refrain from using this information for any purpose other than the use of the products or the execution of the project to which it refers and from communicating it to third parties without prior written agreement of Automatic Systems. The document is subject to change without notice.

2.1 CONNECTIONS 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 11 and 12 connection with cable cv09A to the 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).

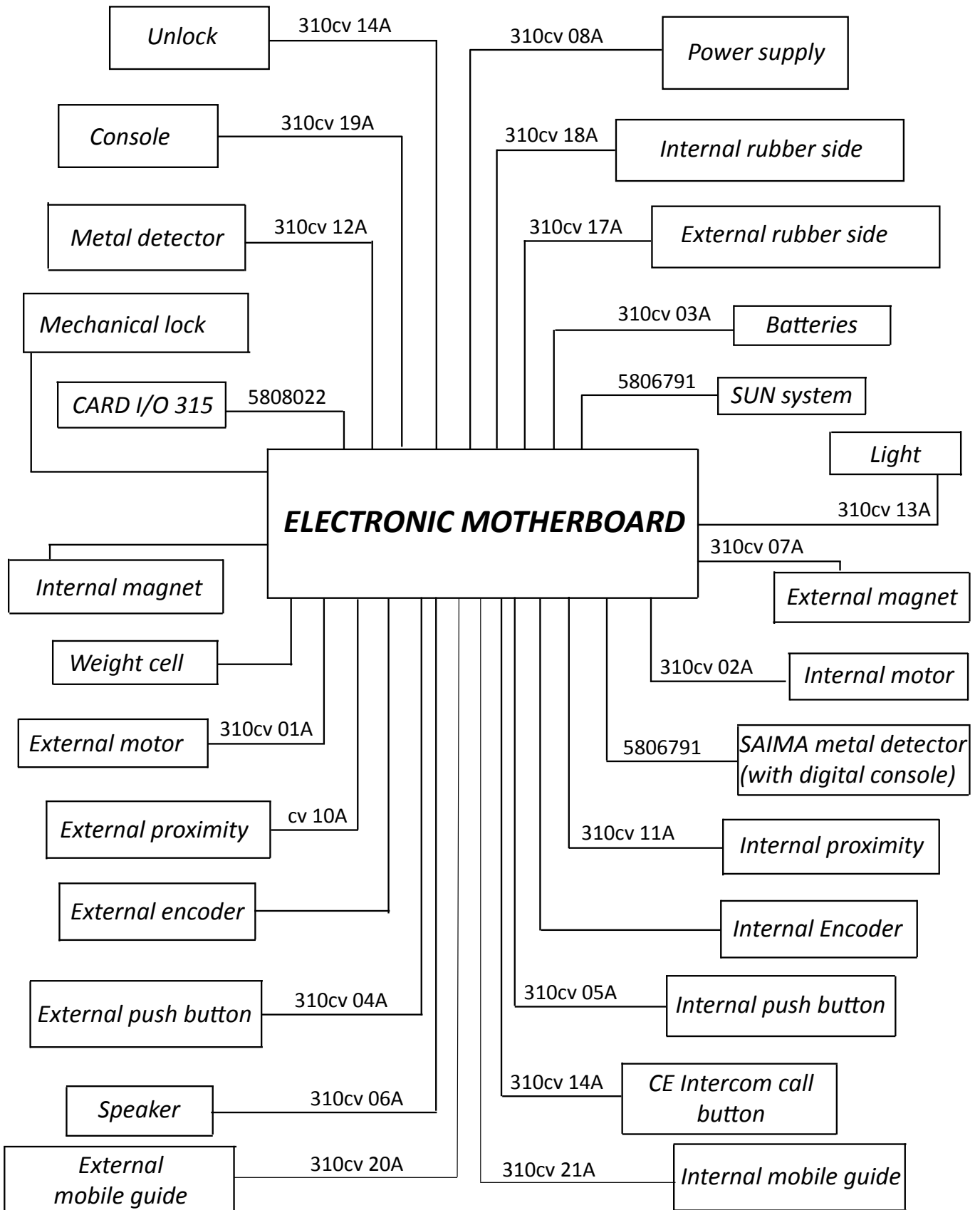
23 - Connection with cable 5806791 to the **Automatic Systems** Metal Detector with digital console.

24 - Led self analysis.

25 - Connection with cable cv20a to the external mobile guide.

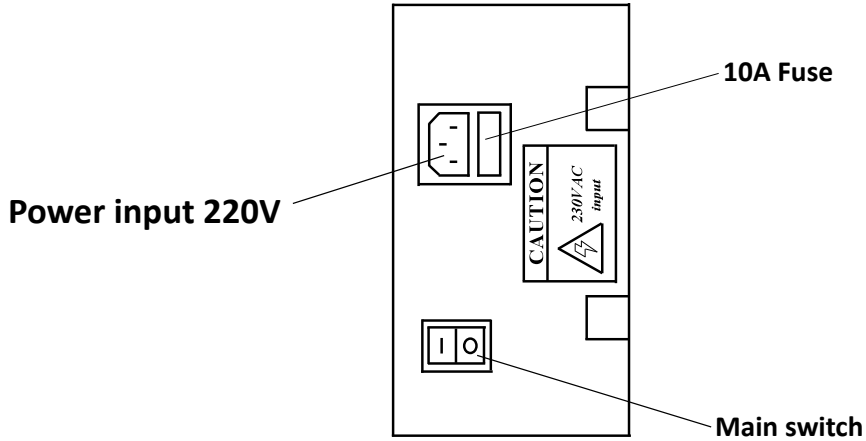
26 - Connection with cable cv21a to the internal mobile guide.

2.2 BLOCK DIAGRAM

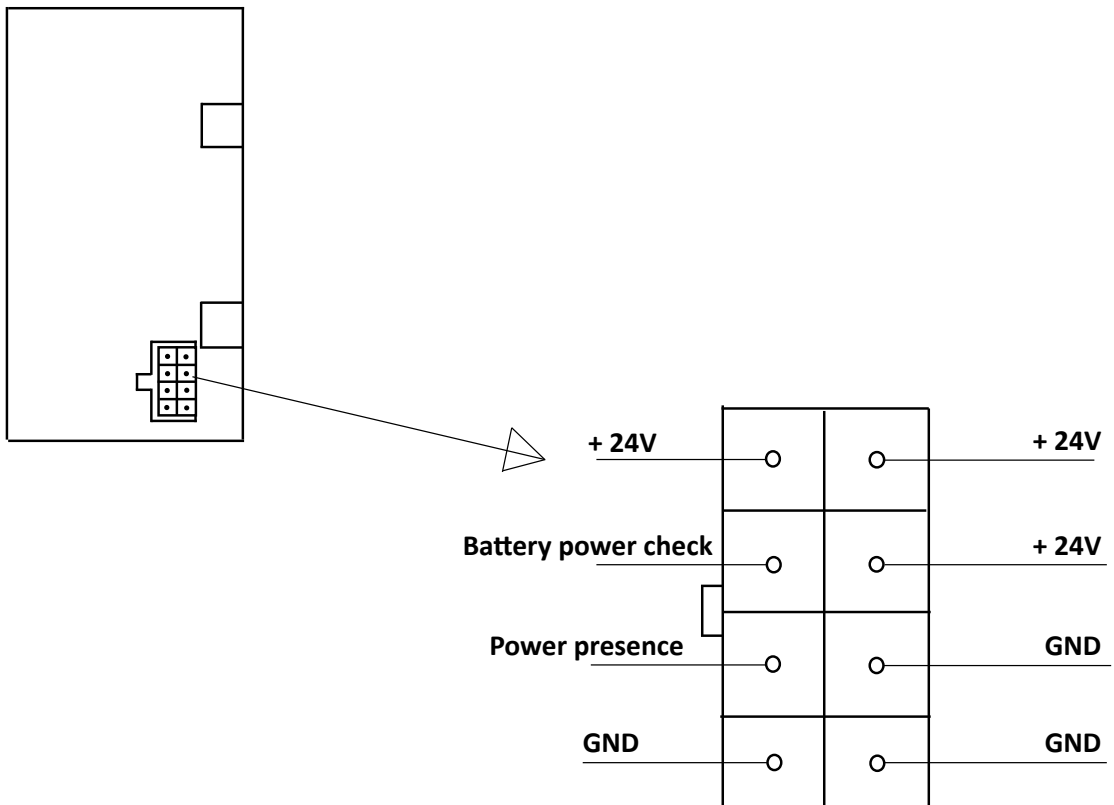


2.3 POWER SUPPLY

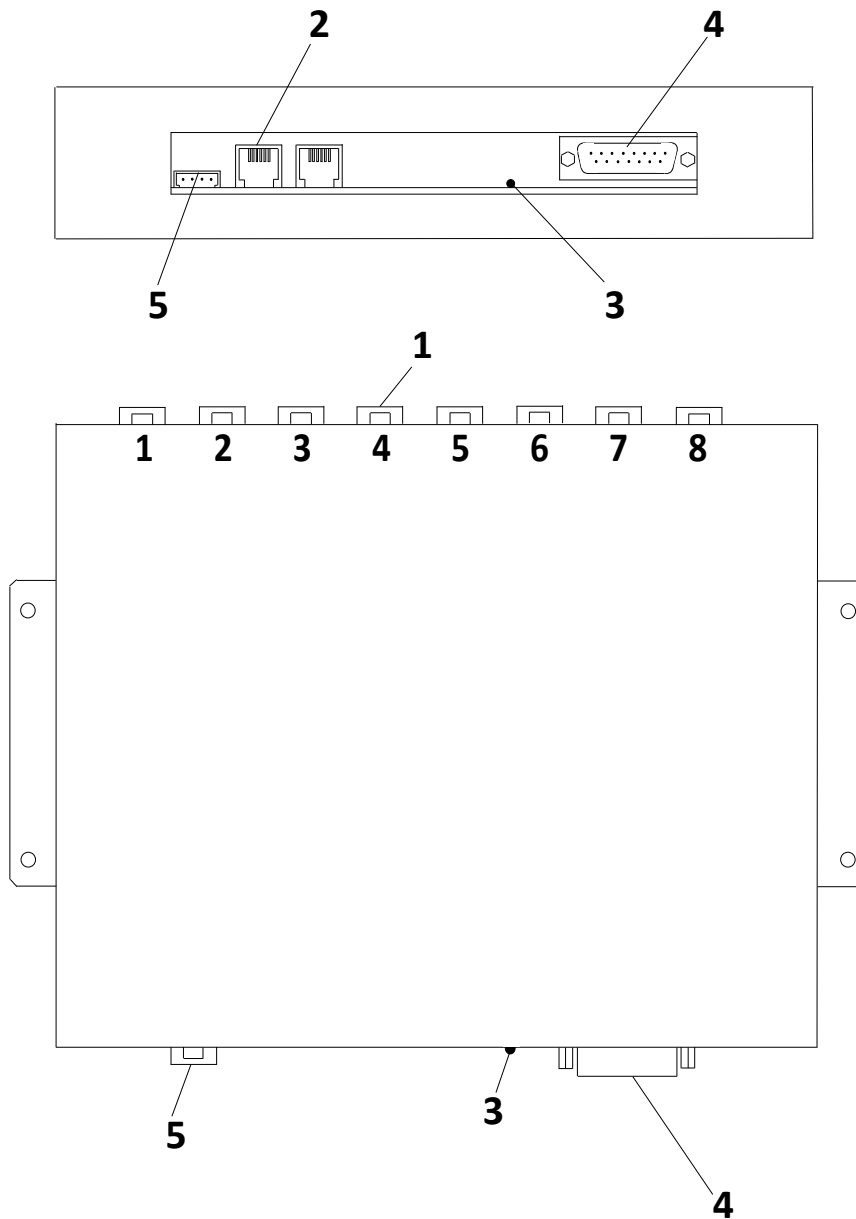
Front side view



Back side view



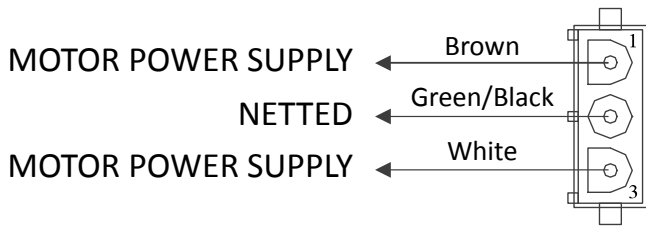
2.4 SUN ANTENNA MAIN BOARD



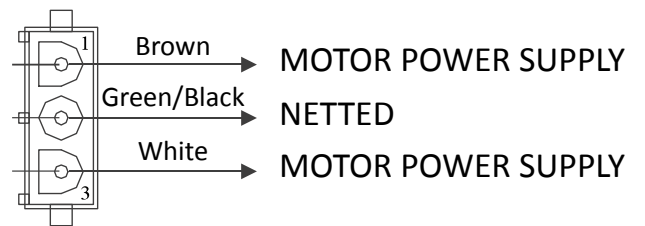
- 1) SUN antenna's connectors.
- 2) SUN amin board connecting plug - single card.
- 3) SUN system functioning led (if the led flashes at a frequency of 1 second the system is working properly).
- 4) Not used
- 5) Not used.

2.5 CONNECTIONS (MAIN BOARD)

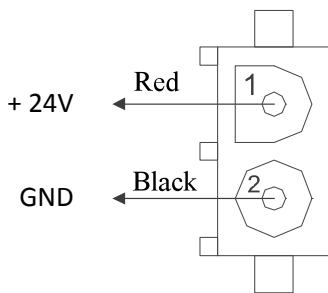
1- Internal door motor



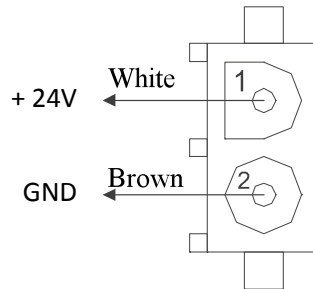
2- External door motor



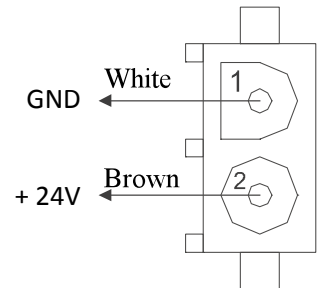
3- Batteries



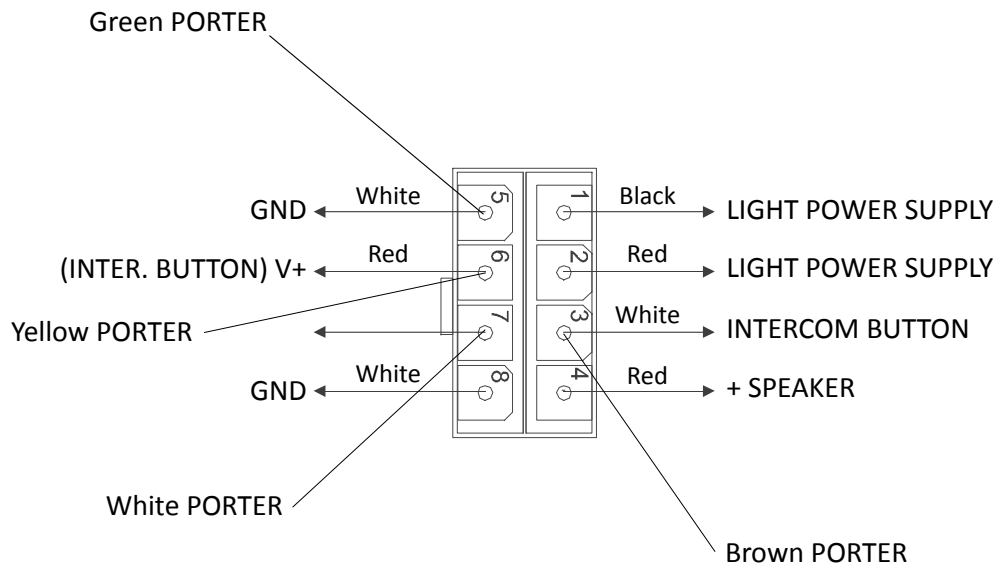
4- Int. magnet



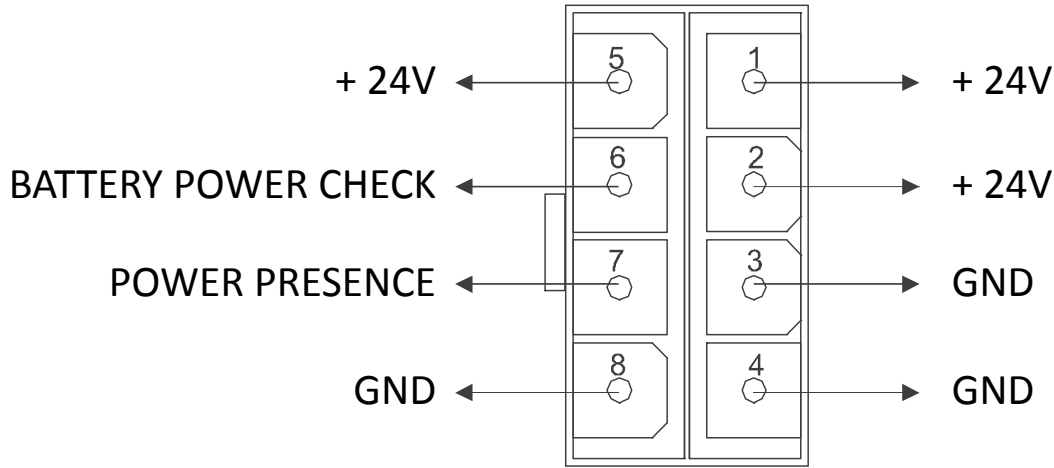
5- Ext. magnet



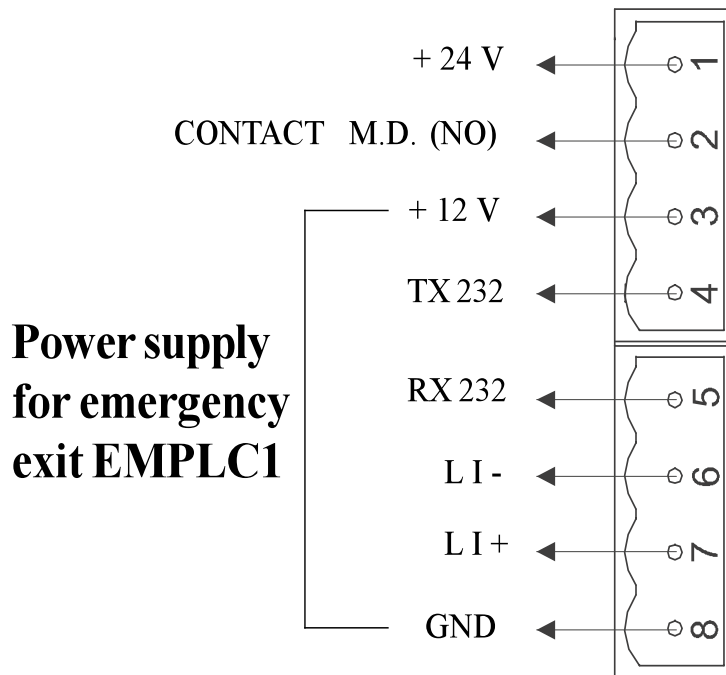
6- Ceiling light



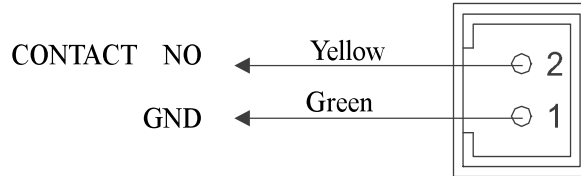
7- Power supply



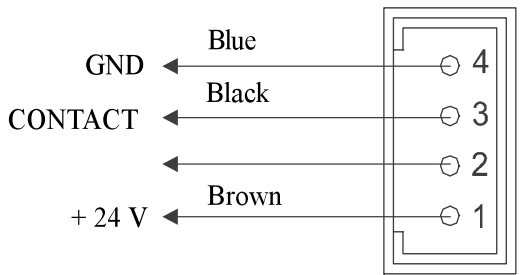
8- Metal Detector



9- Unblock

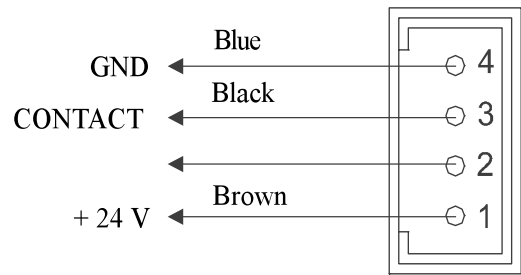


10- 11- Proximity switch



PNPNO 24V

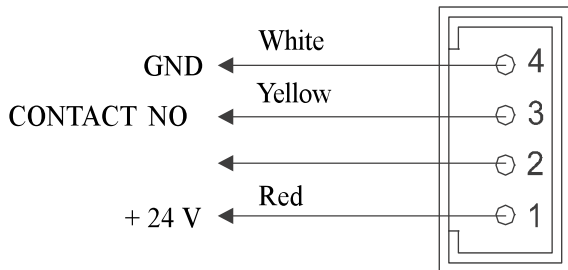
INT.10



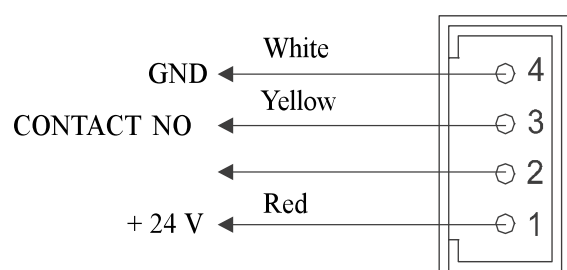
PNPNO 24V

EXT.11

12- 13- Accident prevention photocells

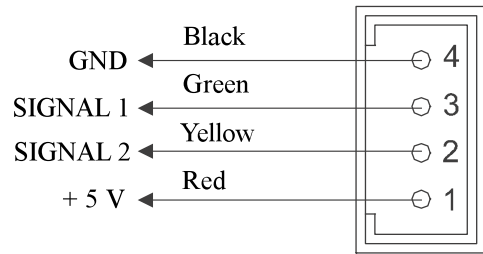


INT.12

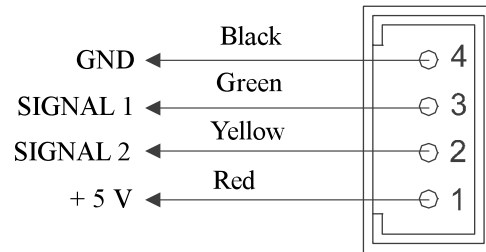


EXT.13

14- 15- Encoders

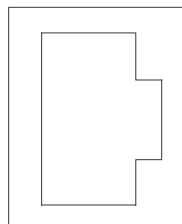


INT.14

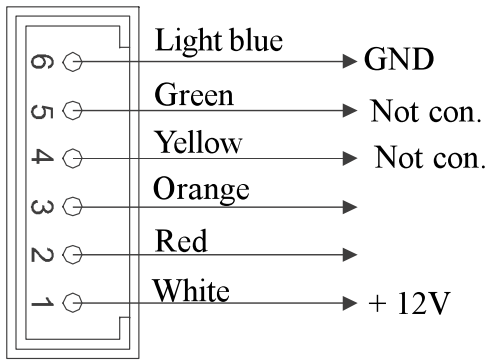


EXT.15

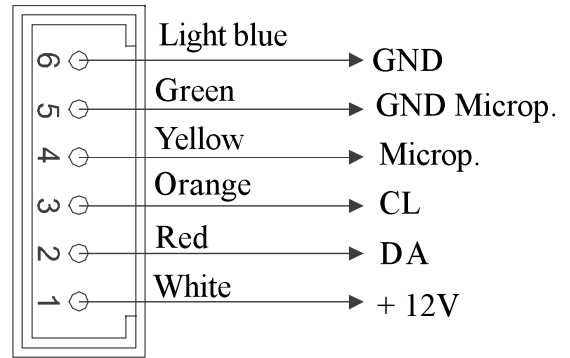
16- Main Console



17- 18- Push button panels

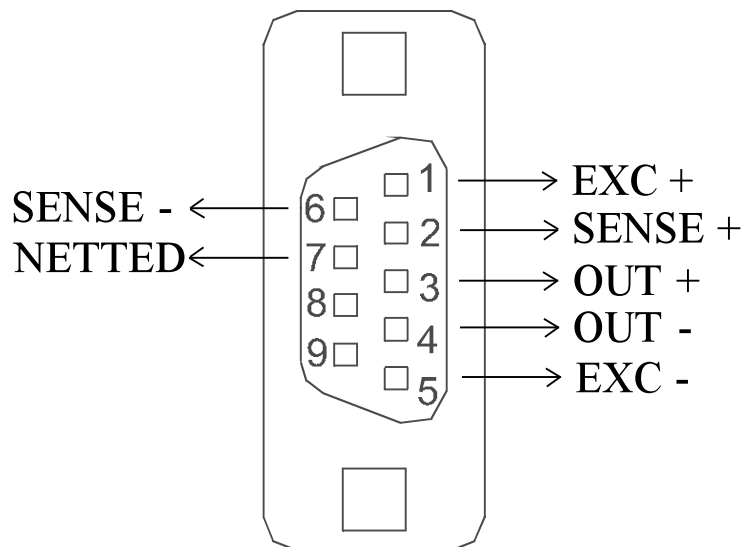


INT.17



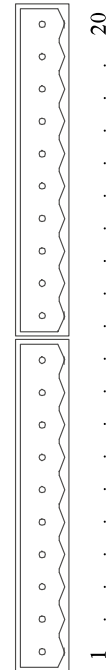
EXT.18

19- Loading cell



20- Inputs

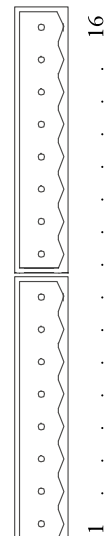
Nº	NAME	PREDISPOSITION
1	INP 6	On (Contact NC)
2	INP 7	Person sensor
3	+ 24 V	On (Common)
4	GND	Not used
5	+ 12 V	Not used
6	+ 12 V EXT	Photo couplers
7	INP 8	Rubber side opening
8	INP 9	Ext. unlocked
9	INP 10	Int. unlocked
10	INP 11	m.d. exclusion for one passage
11	+ 24 V	Mechanical lock (contact C)
12	INP 0	Mechanical lock (contact NO)
13	INP 1	Auxiliary input metal alarm (see metal alarm connector as well)
14	+ 24 V	First entrance key (contact C)
15	INP 2	First entrance key (contact NC)
16	INP 3	Internal radar or Badge (contact NO)
17	+ 24 V	Radar (Common)
18	INP 4	External radar or Badge (contact NO)
19	INP 5	Post key (contact NC)
20	+ 24 V	Post key (contact C)



INPUTS CONNECTOR

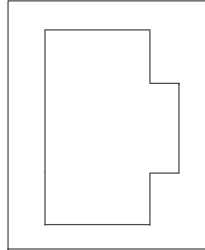
21- Exit

Nº	NAME	PREDISPOSITION
1	GND	Not used
2	OUT 8	Camera cycle
3	GND	Not used
4	OUT 7	m.d. block Ceia
5	GND	Not used
6	OUT 6	Person present
7	GND	Not used
8	OUT 5	Night function
9	GND	Not used
10	+ 12 V OUT	Power supply 12V protected for external use
11	GND	Earthing for external use
12	OUT 3	Not used
13	GND	Not used
14	+ 24 V OUT	Power supply 12V protected for external use
15	GND	Earthing for external use
16	OUT 1	Not used

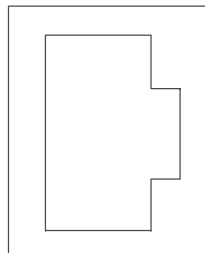


OUTPUTS CONNECTOR

22- Net 1 (SUN system, where needed)



23- Net 2 (**SAIMA** Metal Detector, with digital console)

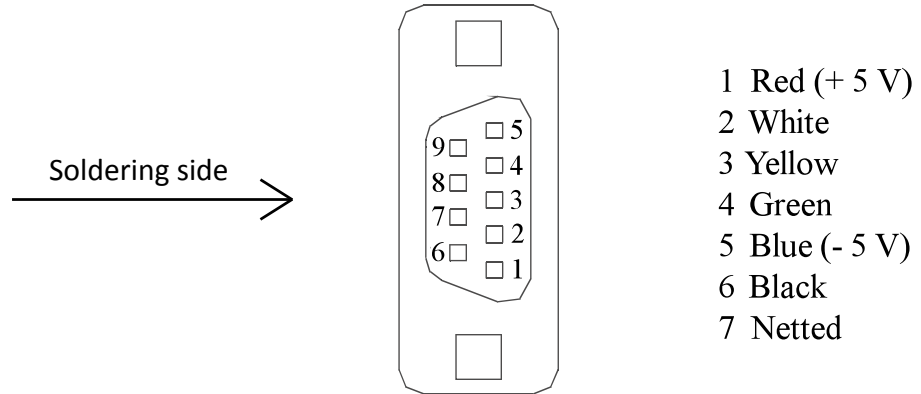


24- Led self analysis

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

2.6 WEIGHT SYSTEM CONNECTION DIAGRAM

DB9 male connector that connects the weight system:



Optimal working measures

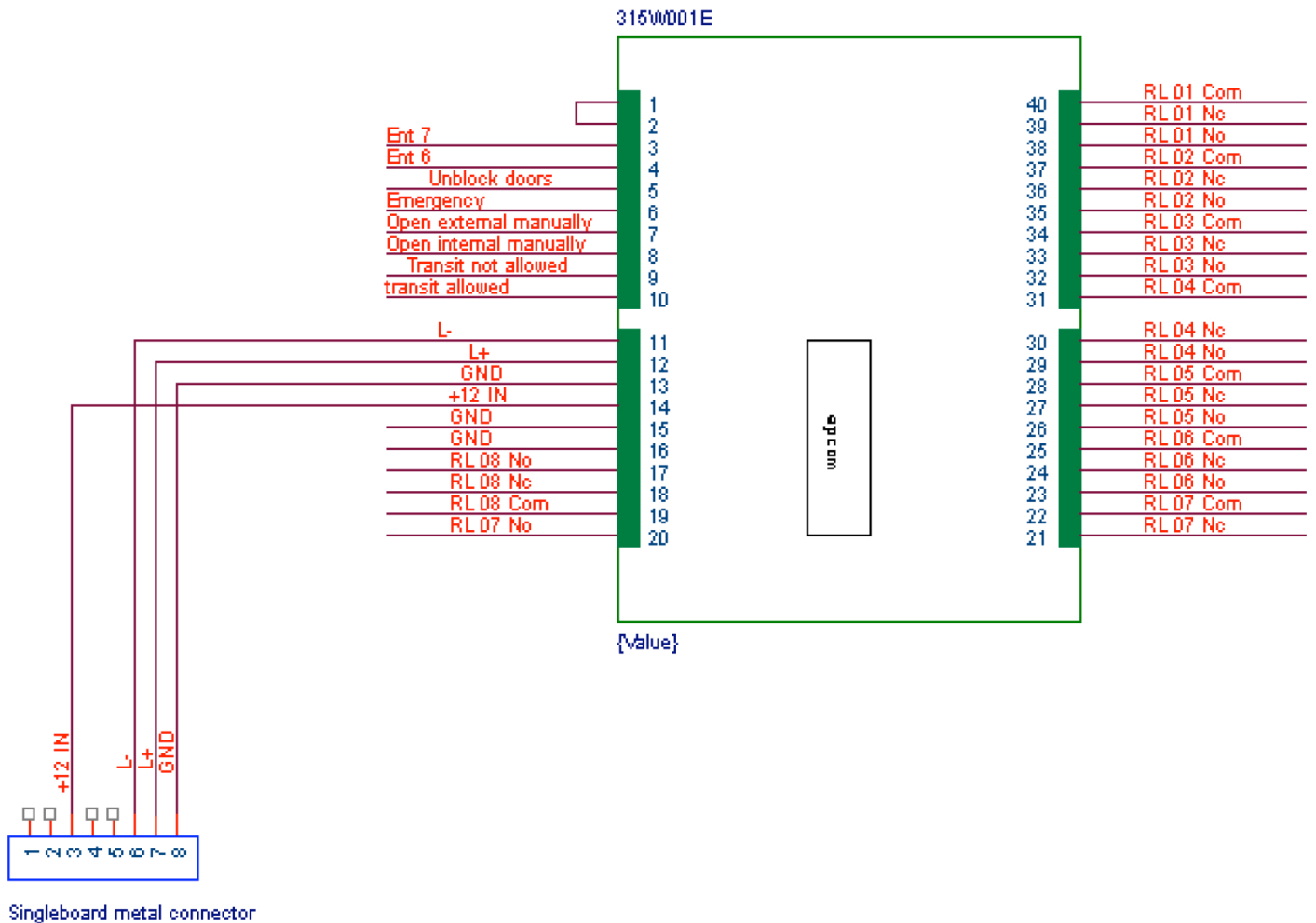
Red > 4 KΩ about
 Blue >

Yellow > 4 KΩ about
 Green >

Red > 3 KΩ about
 Yellow >

Red > 3 KΩ about
 Green >

2.7 AUXILIARY BOARD I/O 315 CONNECTION DIAGRAM



RL 01 TRANSIT VALIDATION IN ENTRANCE

RL 02 TRANSIT VALIDATION IN EXIT

RL 03 BOOTH CONTACT IN EMERGENCY

RL 04 INTERNAL DOOR CONTACT CONDITION

RL 05 EXTERNAL DOOR CONTACT CONDITION

RL 06 EXCESSIVE WEIGHT SIGNAL

RL 07 INTERCOM SIGNAL

2.8 EQ - 34 SENSOR ADJUSTEMENT



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.

2.9 INTERNAL INTERCOM PORTER



By pushing the key with the bell inside the booth, the intercom porter is activated (placed on the ceiling of the booth) enabling communication with the console.

3. 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 **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.

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

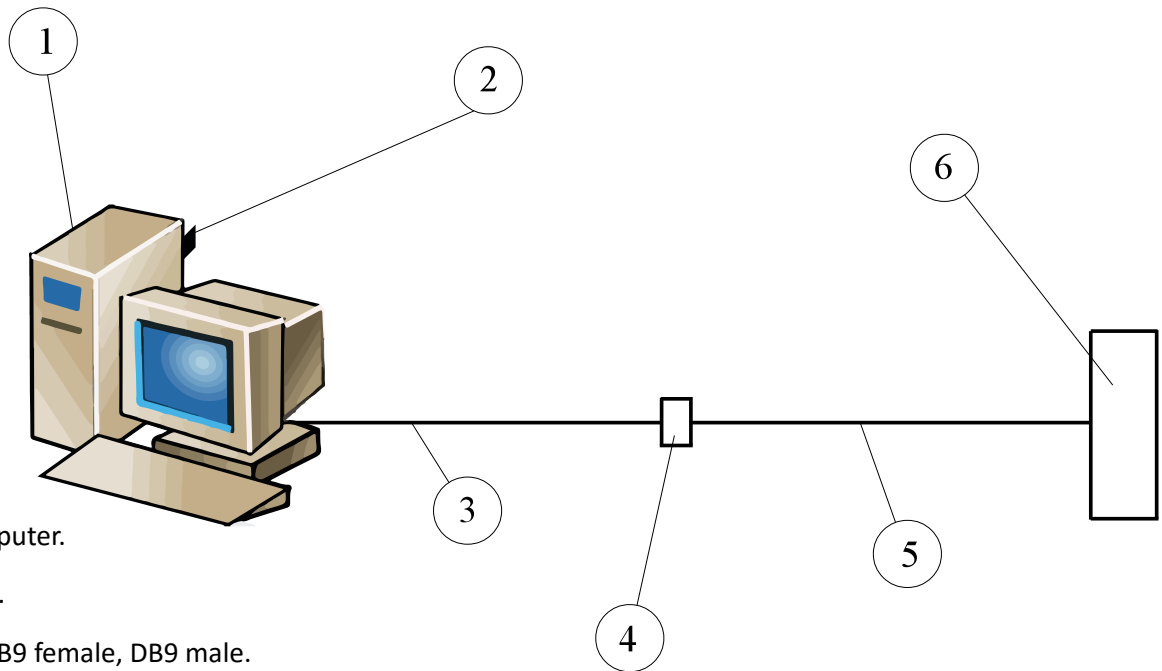
For instructions on how to use the «Power Console» software, you can request the handbook by calling **Automatic Systems technical assistance service.**

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.**

ATTENTION: If a system error called «ENCODER ERROR» appears on the input status screen, while opening the program, this could mean that:

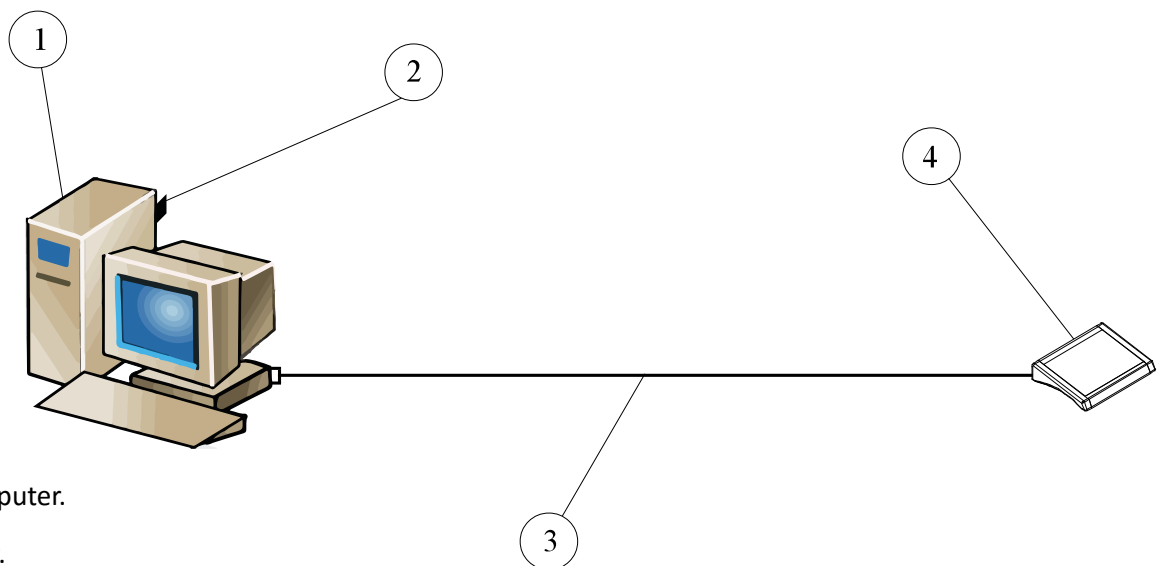
- The power supply of the motors is inverted.
- Counting of the encoder rotation stage is inverted.
- Some type of hindrance prevents the doors to move toward the closed position.

3.1 COMPUTER CONNECTION DIAGRAM - MAIN BOARD



- 1) Personal computer.
- 2) Hardware key.
- 3) Serial cable DB9 female, DB9 male.
- 4) RS232 / RS485 converter.
- 5) Interface cable converter - logic 8 prong plug.
- 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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