




# Work Table with Adjustable Height PL2000 User Manual



 PL PROJECT Ltd.	History  Work Table with Adjustable Height PL2000	User Manual PL2000  ORIGINAL'S TRANSLATION
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### History

Date	Name	Description
30.11.2021	BoL	Creating the document
06.02.2022	RoM	Update Package contents
28.02.2022	BoL	Some figures added, Maintenance chapter extended with residual current breaker description.
11.05.2022	RoM	Edit Package contents replace figures in paragraphs Mount the Table Top:, Fasten the Table Top, Mount the Stand to the Table Top:, Fasten the Stand to the Table Top
14.01.2023	YoM	Updated Electrical circuit diagram
17.06.2023	SIM	Updated Spare parts list

Subject to technical modifications to improve the quality and safety of the manufactured equipment.

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## 1 General

PL2000 is a stable and versatile single leg working table, which is intended to enable a reliable support of small machinery in different light industries.



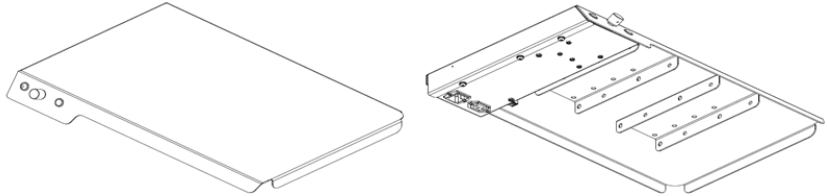
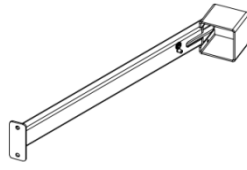
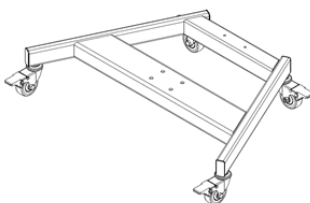
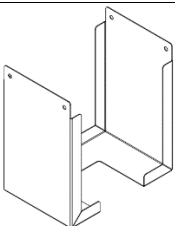

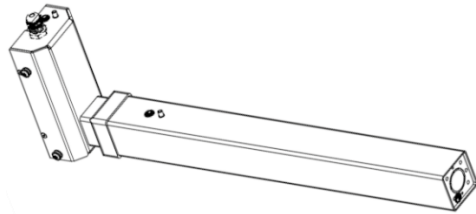

Note


The illustrations in this document are for informational purposes only and may not be accurate. Differences between revisions of the various components may not be reflected in the illustrations where this is not decisive for the principle of operation of the system.

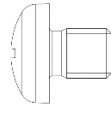
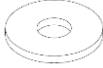




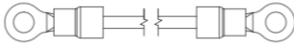
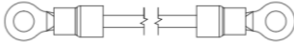
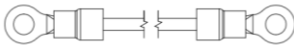
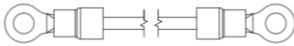

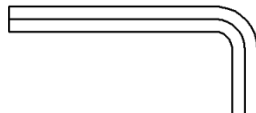
 PL PROJECT Ltd.	Package contents Work Table with Adjustable Height PL2000	User Manual PL2000 ORIGINAL'S TRANSLATION
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## 2 Package contents



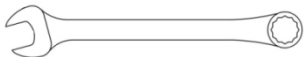
The presence of the following parts is to be checked immediately after unboxing the package:

Pos. Nr	Qty.	Designation	Picture
1	1	Table Top	
2	1	Back Support	
3	1	Floor Base with mounted Wheels	
4	1	Stand	
5	1	Pressing Plate	
6	1	Motorized Column	
7	5	Toothed lock washers DIN 6797 A 4,3	

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8	5	Screw DIN 7045 H M4 x 6	
9	4	Metal Washer DIN-9021 Size 6.4	
10	2	Metal Washer DIN-125-1 A-A Size 6.4	
11	8	Screw ISO 7380-2 Size M6 x16	
12	2	Screw ISO 7380-1 Size M6 x 16	
13	4	Screw ISO 7380-1 Size M6 x 60	
14	1	Floor base YE/GN grounding wire (single side mounted)	
15	1	Back support's YE/GN grounding wire (single side mounted)	
16	1	Stand's YE/GN grounding wire (single side mounted)	
17	1	YE/GN Wire for grounding of the motorized column (single side mounted)	
18	1	Hex Key 4 mm	
19	1	Hex Key 2.5 mm	


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20	1	Table to Machine Cable IEC C13- C14	
21	1	Power Supply Ca- ble IEC C13 2)	
22	1	Wrench 10mm <sup>1)</sup>	

**Table 1 Package contents**

- 1) Dependent on the table's revision the Wrench 10mm could not be included
- 2) The mains plug of the cable depends on the target country



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### 3 Safety precautions

#### 3.1 Subject of application

Electrically adjustable in height work table PL2000, for short referred as "table", is intended to support different types of small machines in the industry. It is unacceptable to use the table for other purposes or outside of measured parameters. For safety purposes, the table has to be used and maintained according to the following manual only.


In order to ensure safe and trouble-free operation, the device should be transported, placed, mounted and leveled correctly in a right environmental condition. Also exploitation has to be with care and regularly maintained.


#### 3.2 Common risks of non-compliance with safety instructions


This table is safe and reliable. There is a risk of harm if it is not mounted properly or used by not trained personnel. Anyone involved in the relocation, mounting, maintenance and operation with the table must be familiar with the operating and installation instructions.


#### 3.3 Residual hazards


The hazards that were impossible to remove by technological means during the design and manufacturing of the equipment are listed in this instruction. The following symbols are used to warn of residual risks:

Symbol:  WARNING!	Meaning: Dangerous situation A warning of a potentially dangerous situation in which non-compliance with safety measures can result in death or serious physical injury.
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Symbol:  CAUTION	Meaning: Potentially dangerous situation Warns of a potentially dangerous situation in which non-compliance with safety measures could lead to the destruction of property or some kind of physical damage.
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Symbol:  Note	Meaning: Important note Meaning: Useful information about the equipment or its maintenance
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Symbol: 	The national environmental and recycling legislation requires any waste equipment and used consumables to be disposed separately from the household waste. More information can be obtained from the respective public authorities or the vendor of the product to be disposed.
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 PL PROJECT Ltd.	Safety precautions  Work Table with Adjustable Height PL2000	User Manual PL2000  ORIGINAL'S TRANSLATION
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### 3.4 Transformation and modifications

The table PL2000 must not be modified in terms of its design or safety measures without express written consent by the manufacturer - PL Project Ltd. Any modification excludes any responsibility by the manufacturer for any damage or injury resulting from the modification.

### 3.5 Qualified personnel

The equipment must be installed, set up and placed for operation by associates familiar with the equipment and by following the safety instructions and measures described below. Qualified personnel are person or group of people that are trained for installation, relocation and maintenance of the equipment.


### 3.6 Accident prevention

The table has a board controller and the motor speed is software preset in order to prevent any danger to the operator, also motor electrical current is limited to prevent any damage to the equipment.

The general rules and instructions for accident prevention must be followed.

### 3.7 Electromagnetic hazards

The PL2000 table complies with EN 55011 cl. 62.2 – Limits of electromagnetic disturbances for class B group 1. The tests and measurements designate the system as safe for use even in domestic and light industrial areas.

 PL PROJECT Ltd.	Intended use of the equipment  Work Table with Adjustable Height PL2000	User Manual PL2000  ORIGINAL'S TRANSLATION
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## 4 Intended use of the equipment


The PL2000 is a single leg work table with electrical adjustment of height, which is intended to carry small and relatively light machinery in different industry areas.

### 4.1 Purpose of all main modules

The basic components and controls of the table are shown on Figure 1 and Figure 2.



**Figure 1 Machine description front**

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**Figure 2 Machine description back**

1. Table's top with the working surface;
2. Table's back support;
3. Tables floor base with mounted wheels;
4. Stand for different tools, materials and accessories;
5. Trigger button – pressing this button starts the movement of the table's top together with the stand (4);
6. Height adjustment dial – using this one the desired height is chosen;
7. Power on switch;
8. Stand's front board;
9. Motorized lifting column;
10. Differential current protection;
11. Power Supply Socket for Cable IEC C13 with switch and fuse;
12. Power Supply Socket for cable IEC C13-C14;




**CAUTION**

Any operation of the equipment outside its intended use may result in damage to the equipment and injury to the operating personnel

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## 5 Technical specifications

<b>Outer dimensions of the package:</b>	
width	530 mm
length	680 mm
height	150 mm
Gross weight	23 kg
Net weight	21 kg
Max permissible load	50 kg
Power supply	100-240V/50-60 Hz
Power consumption	50 W
Height range	~78-120 cm
Maximal linear velocity	10 mm/s
Noise level	<70dB (A)
Working temperature	10÷38°C
Storing and transporting temperature	-20÷+60°C
Average humidity without condensation	10÷90%
Environment: additional measures may become necessary when working in a dusty or aggressive environment or exposed to strong electromagnetic interference.	

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## 6 Equipment installation

### 6.1 Stability during use, installation and maintenance

Following the instructions in present Chapter 6 the operator, respectively the maintenance personnel ensure the safety of the equipment and people during use, installation and maintenance.

### 6.2 Environmental installation requirements

The table is designed for indoor use only.

Keep it away from moisture or rain, snow, ice, salt water and aggressive chemicals.

The presence of metallic dust or corrosive gases in the air can impair the functionality of the machine.

Installing of the machine can be made by each user by keeping with the following requirements:

### 6.3 Measurements for installation in order to reduce the noise and vibration level of the equipment

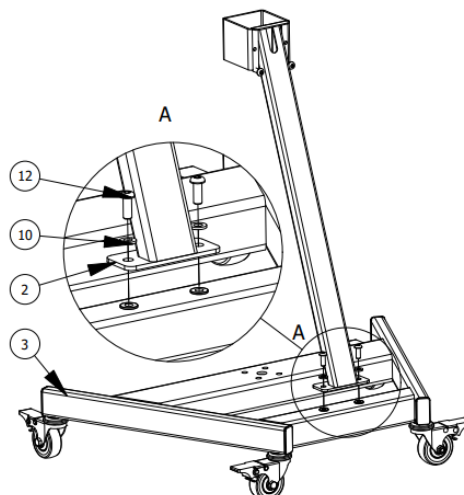
The table with electrical height adjustment PL2000 works with levels of the noise and vibrations which are safe for the operators and the maintenance personnel.

There are not special measures foreseen in order to reduce these levels.


### 6.4 Assembly and Installation of the Table

Installation of the machine is easy and doesn't require additional instruments unless the ones that could be found in the packaging.

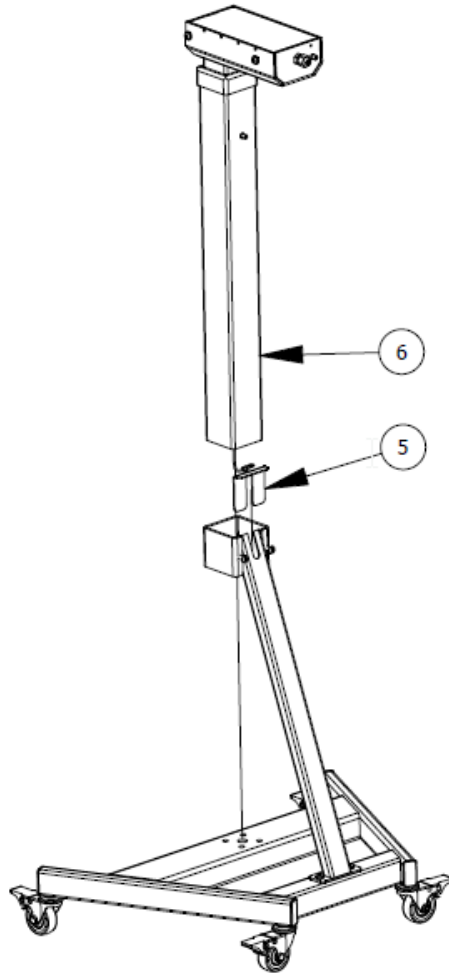
1. Unpack of the table. Take it out from the transportation packaging and released from all sealing.
2. Assemble the table according the following diagrams:
  - a.. Mount the Back Support to the Floor Base:



**Figure 3 Mounting the back support to the floor base**

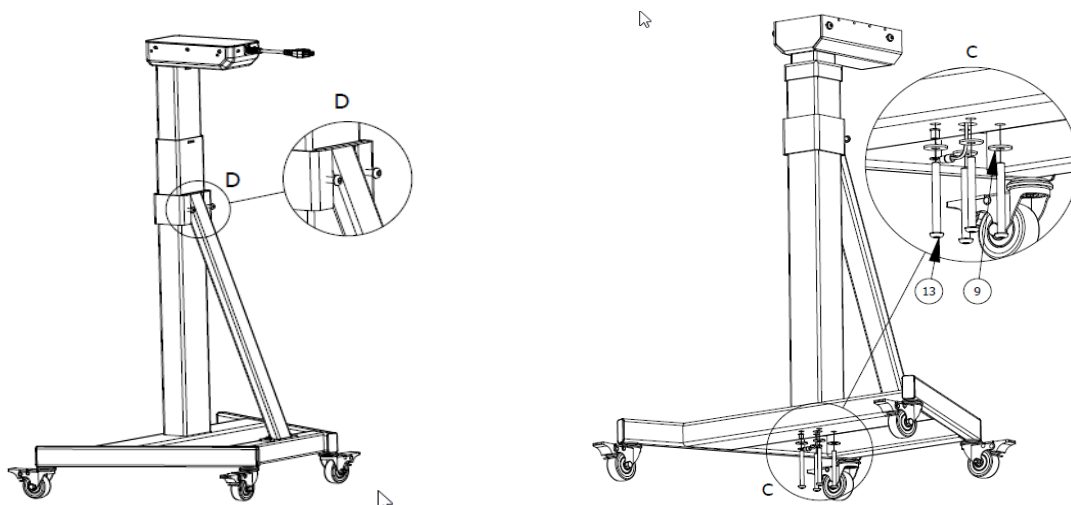
 PL PROJECT Ltd.	Equipment installation Work Table with Adjustable Height PL2000	User Manual PL2000 ORIGINAL'S TRANSLATION
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b.. Align the Motorized Column and the Pressing Plate:



**Figure 4 Aligning the Motorized Column**

c.. Fastening the Motorized Column:



**Figure 5 Fastening the Motorized Column**



d.. Connecting the ground wires:

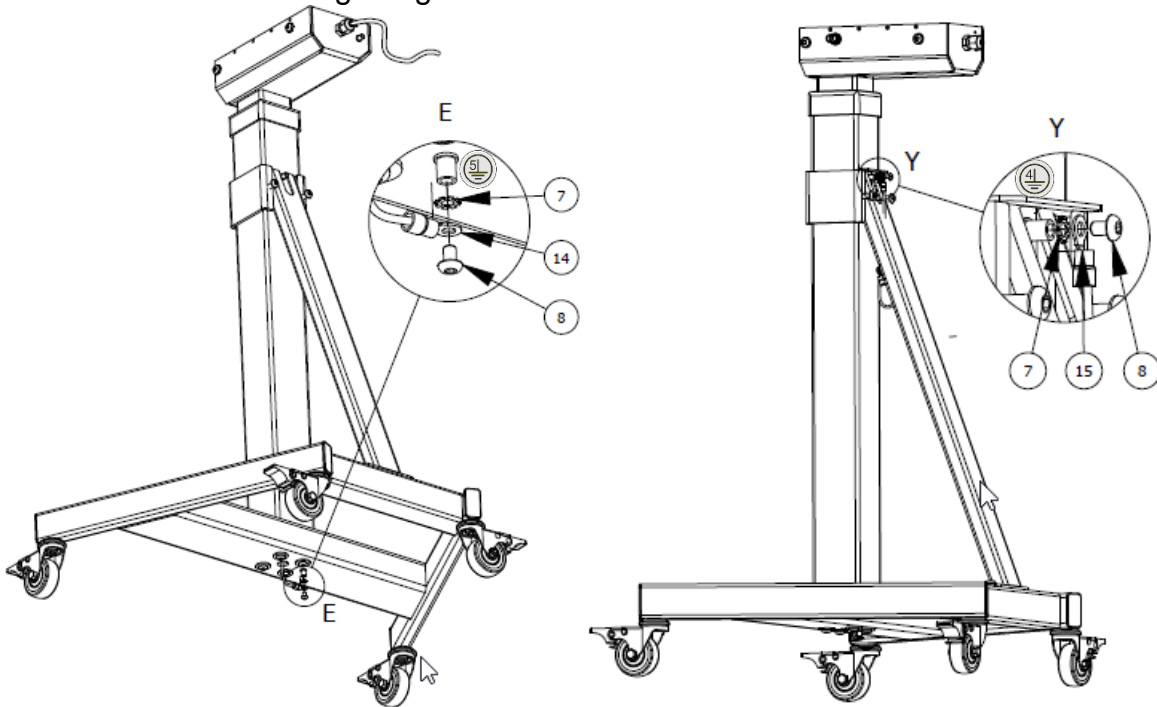


Figure 6 Ground wires of the static part

e.. Mount the Table Top:

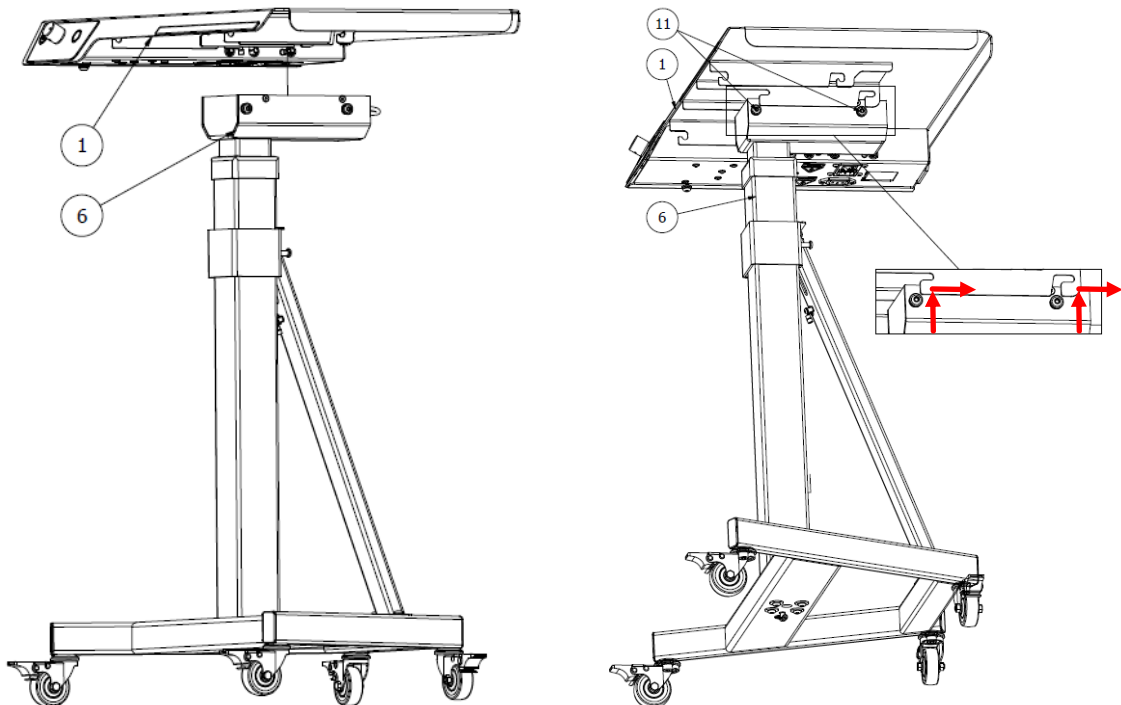


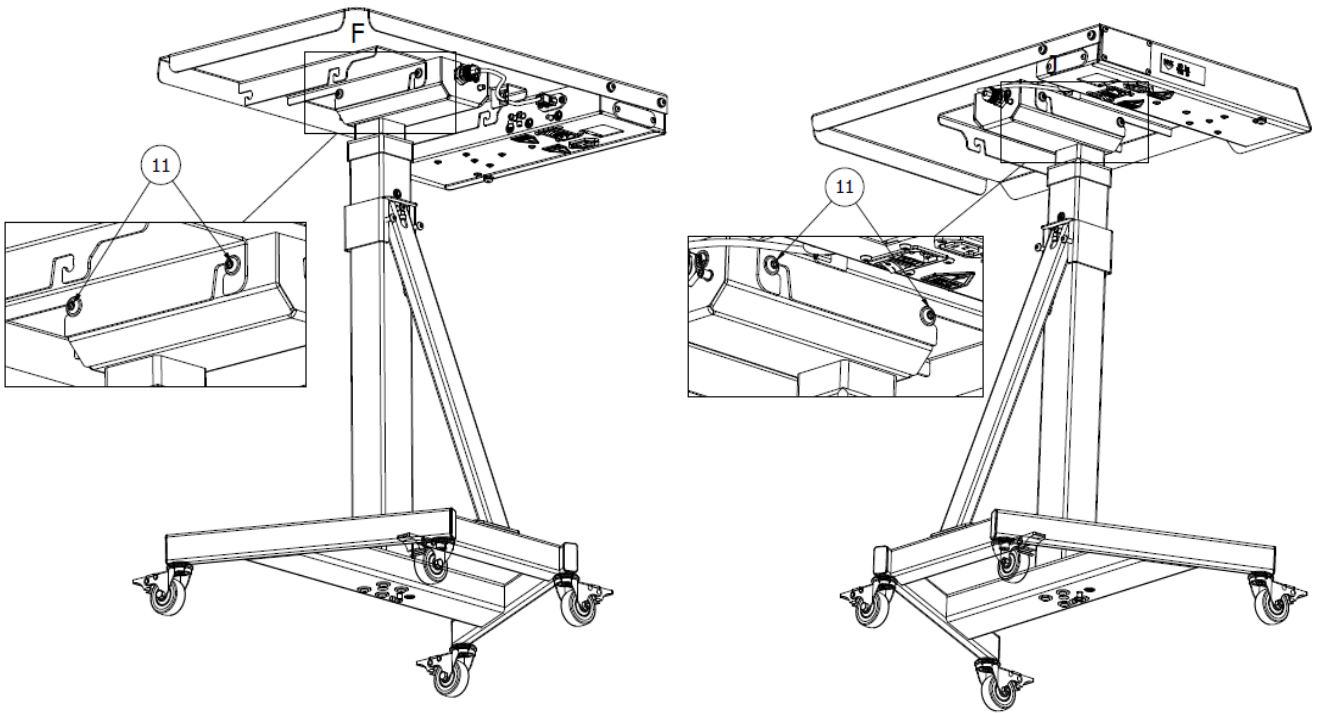
Figure 7 Mounting of the Table Top





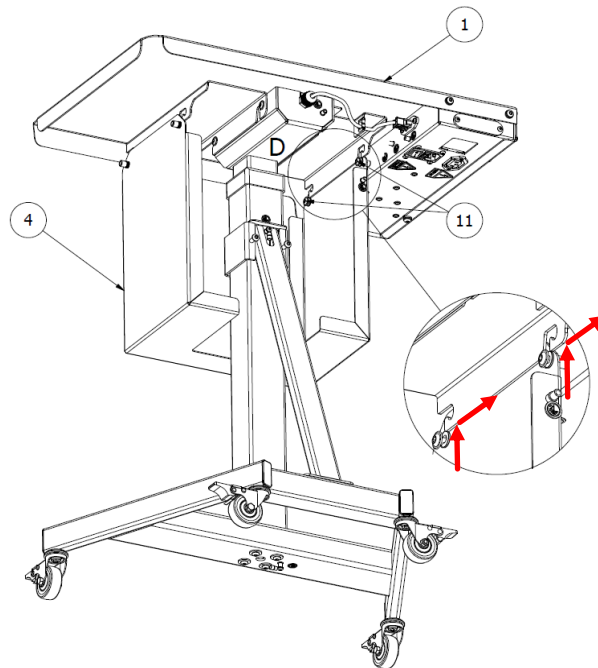


f... Fasten the Table Top:



**Figure 8 Fastening the Table Top**

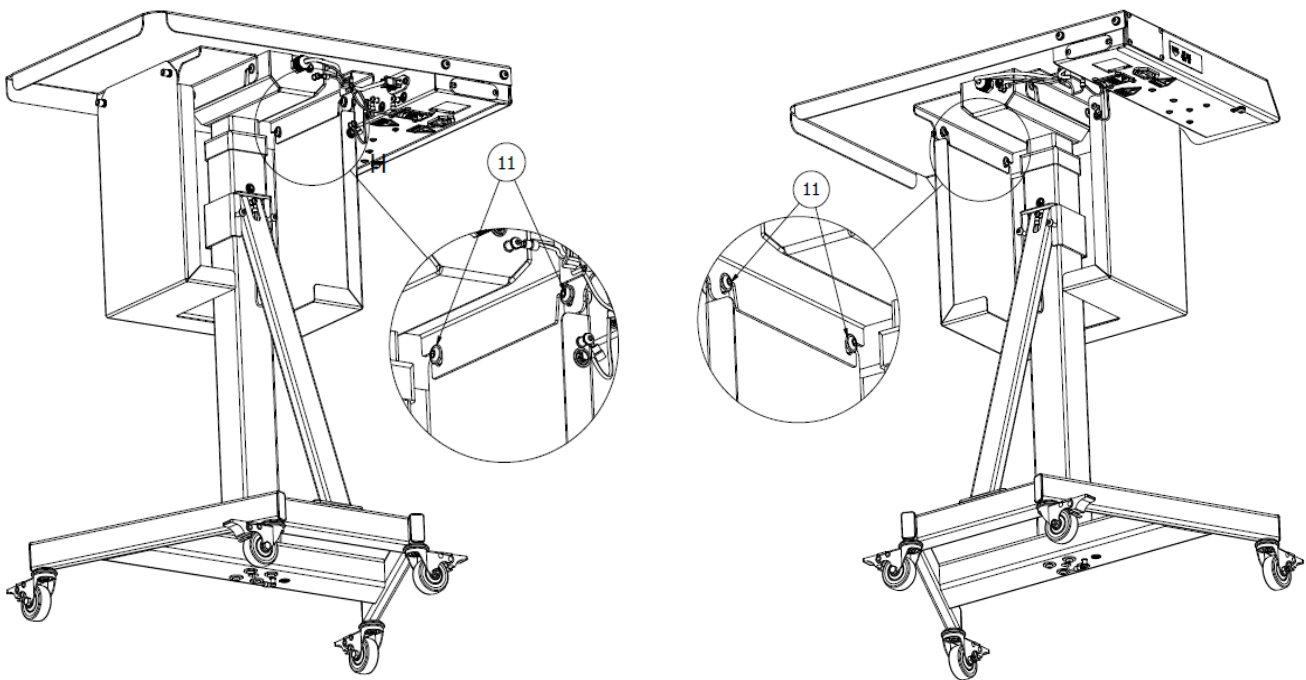
g.. Mount the Stand to the Table Top:



**Figure 9 Mounting the Stand to the Table Top**

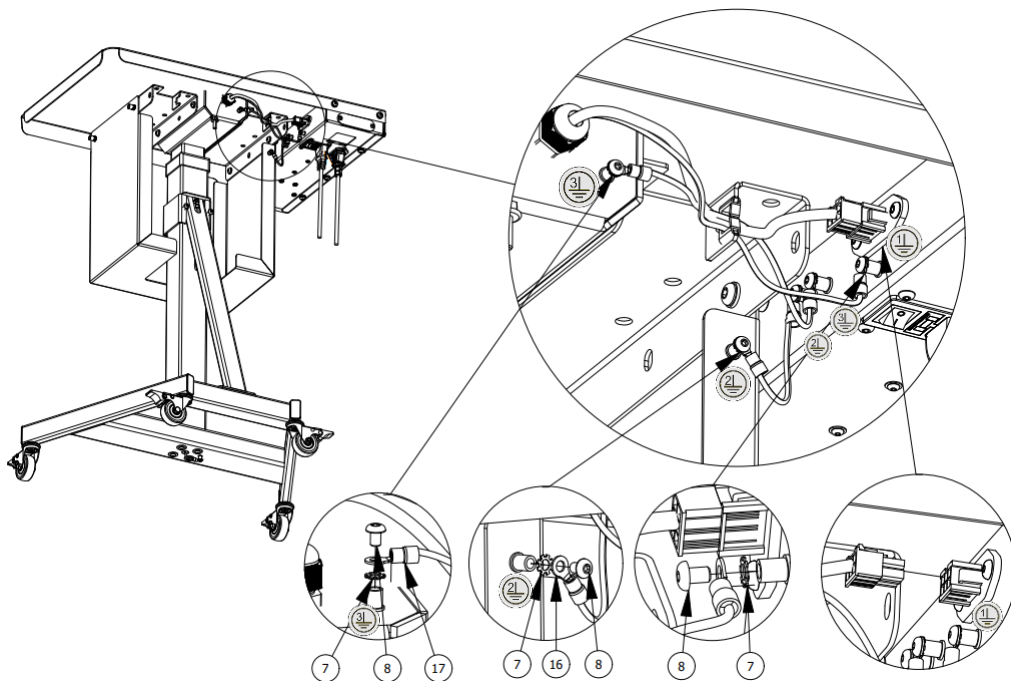


h... Fasten the Stand to the Table Top:




**Figure 10 Fasten the Stand**

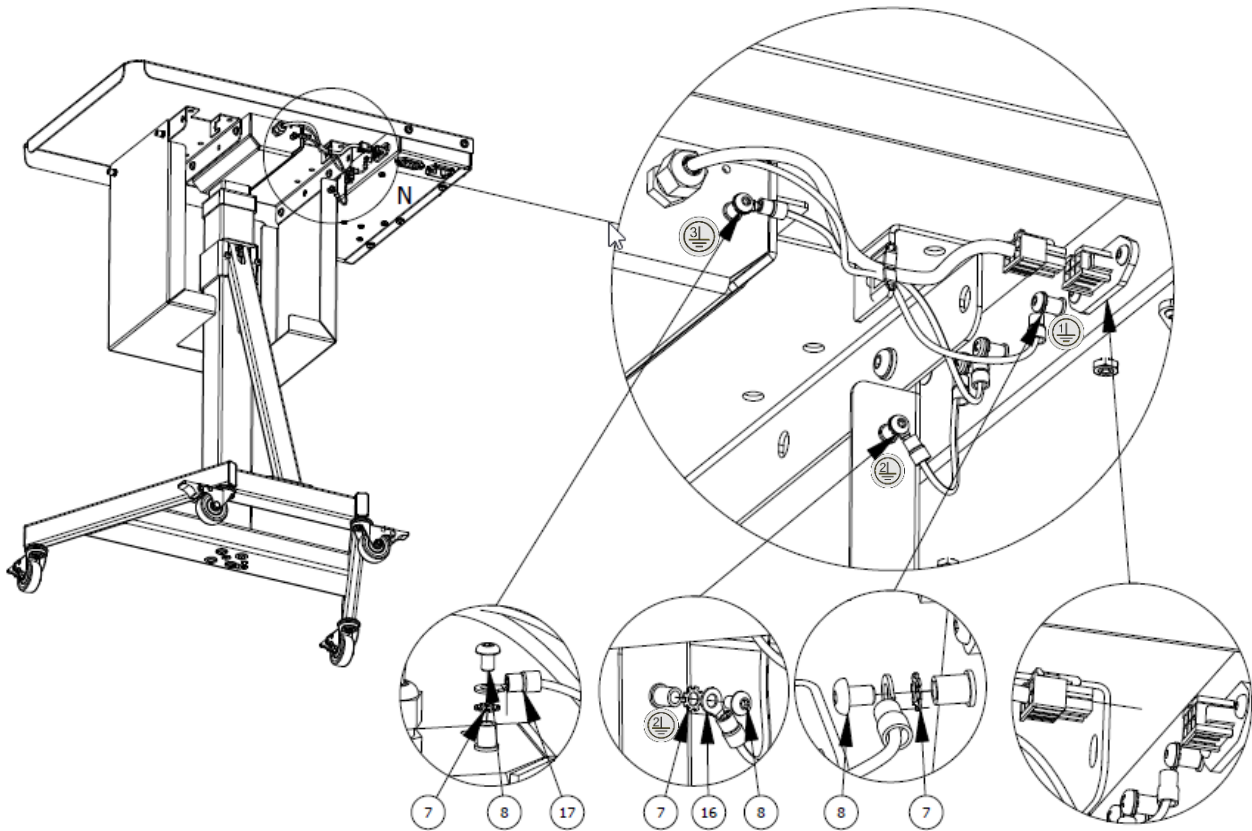
i... Connecting the ground wires of the moving part:



**Figure 11 Connecting the ground wires on the moving part**

	<b>CAUTION</b>	<b>DANGER!</b> Incorrect connection or fastening of grounding wires may cause danger for life and health of the operating personnel
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j... Plug in the Motorized Column's cable into the control module's socket. Please, see Figure 12:



**Figure 12 Connecting the motor cable**

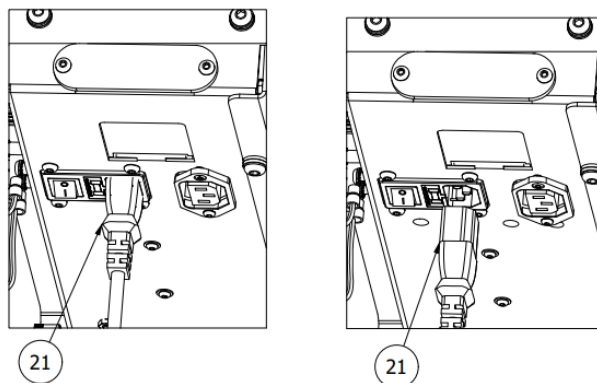
3. Place for installation:

The table should be placed on a flat, horizontal and stable floor with area equal or larger in each dimension than 70cm.


4. Power supply

The machine is supplied by a standard IEC C13, 3-wire power supply cable. The cable is included in the delivery.

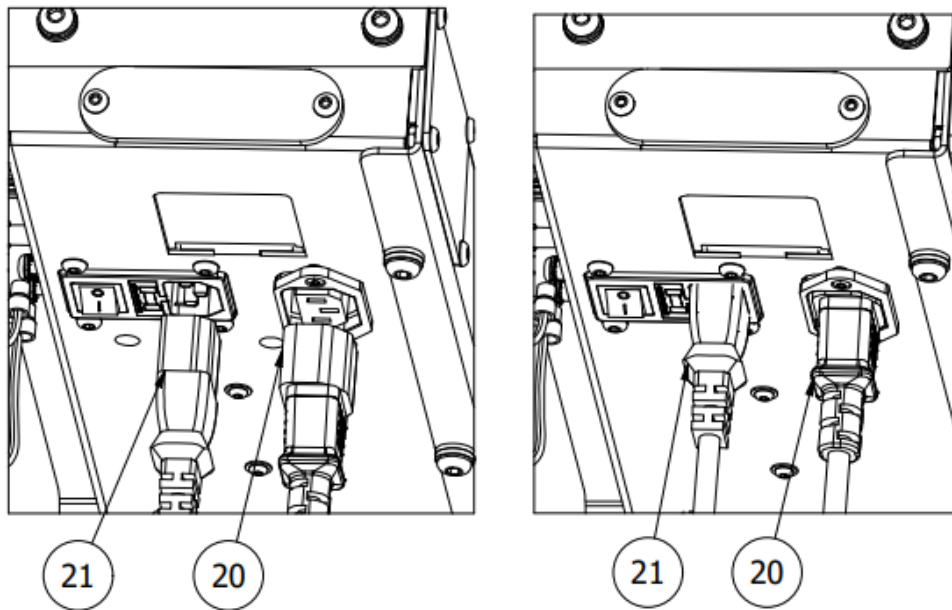
The receptacle's side of the cable should be plugged in the appropriate connector on the bottom side of the PL2000 control box - Figure 13.




**Figure 13 Power supply cable**

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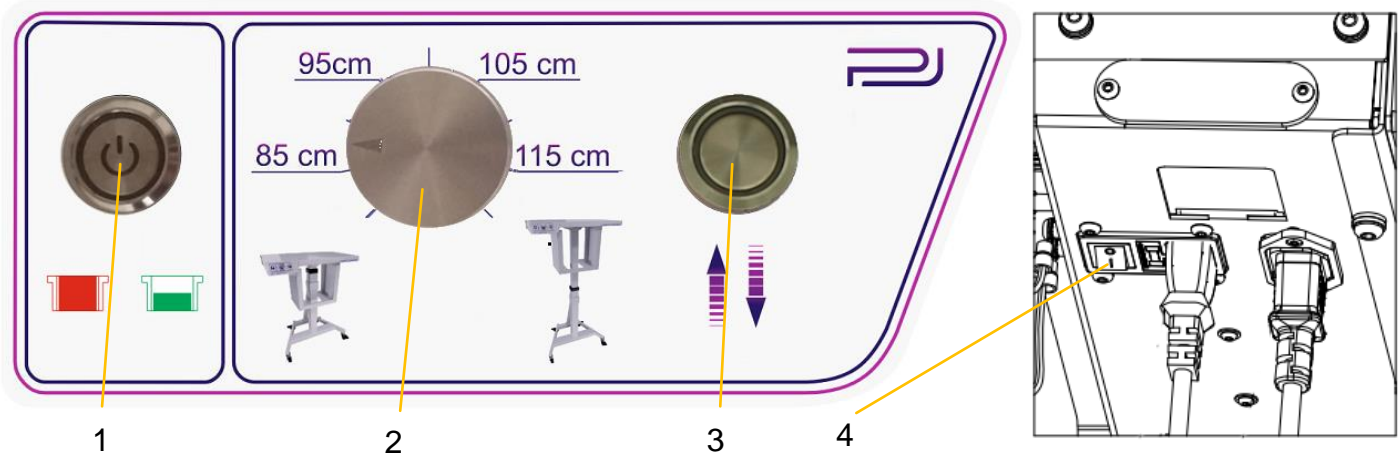
5. The machine should be plugged in a power supply outlet, which provides a standard sinusoidal voltage of 100-240V/50-60Hz
6. The power socket should be undamaged, grounded, in distance allowing the machine to be freely disconnected from the power supply if needed.
7. In case the table is used in combination with another equipment, which is to be supplied via an IEC C13 cable and has a power consumption of up to 150 W, the CEE M CEE F Cable (Table 1, position 18):



**Figure 14 Supplying a machine through the table**

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## 7 Equipment operation



**Figure 15 Control devices of PL2000**

Main controls of the table can be seen on Figure 15, where:

1. On/Off Switch;
2. Table height dial;
3. Set Button;
4. General power on/off switch

The operation is simple and intuitive. Switching the power supply On and OFF is to be made using the On/Off switch. The On/Off switch ensures safe stop of the column in any moment. The general switch of the table is placed near the power supply cable – please see Figure 13. When active the general switch is lit in red color.



Note

If the general power on-off switch is not On the machine cannot work due to lack of power.

To change the height of the table it has to be switched on. Using the “Table height” dial and the scale around it. The dial should point the desired height. The “Set” button is serving as a trigger for starting the movement of the table.

If during the move the “Set” button is pressed for a second time, the movement of the table will stop at the current position.

If the dial is moving, the table stays still until the “Set” Button is pressed.

After switching off the table, the position remains unchanged.




Caution

Overload of the table may cause defect of the equipment as well as injury of the operating personnel.


## 8 Machine maintenance

General maintenance of the machine is regularly cleaning from paint after working. Normally this has to be done every day after work.

If contamination is spotted on the working zone, everything has to be cleaned with cloth. If paint is left to dry out, then cleaning with alcohol is allowed in order to remove it.

	Warning	The use of alcohol and other low-corrosive, highly flammable solvents is only allowed in compliance with the fire protection requirements imposed by the authorities in the country where the machine is used.
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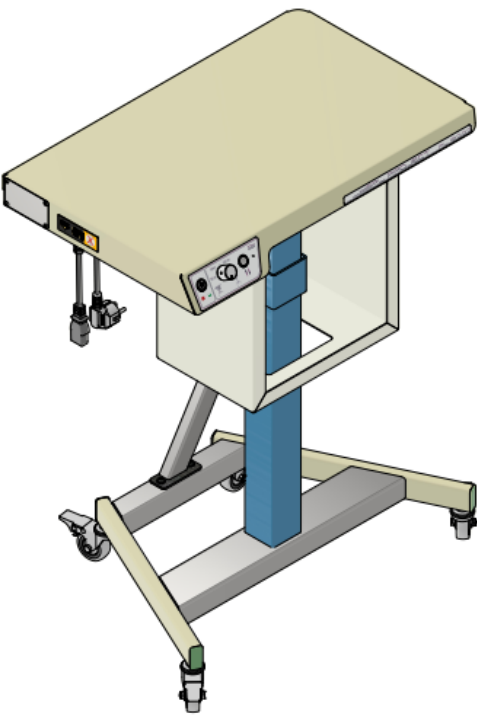
### 8.1 Spare parts list




# SparePartsList

## 000011390070

## Release 10





HeightAdjustableTable	
00001139	Edition Sheet 1 / 5

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Figure 16 PL2000 Spare parts list page 1



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Machine maintenance

Work Table with Adjustable Height  
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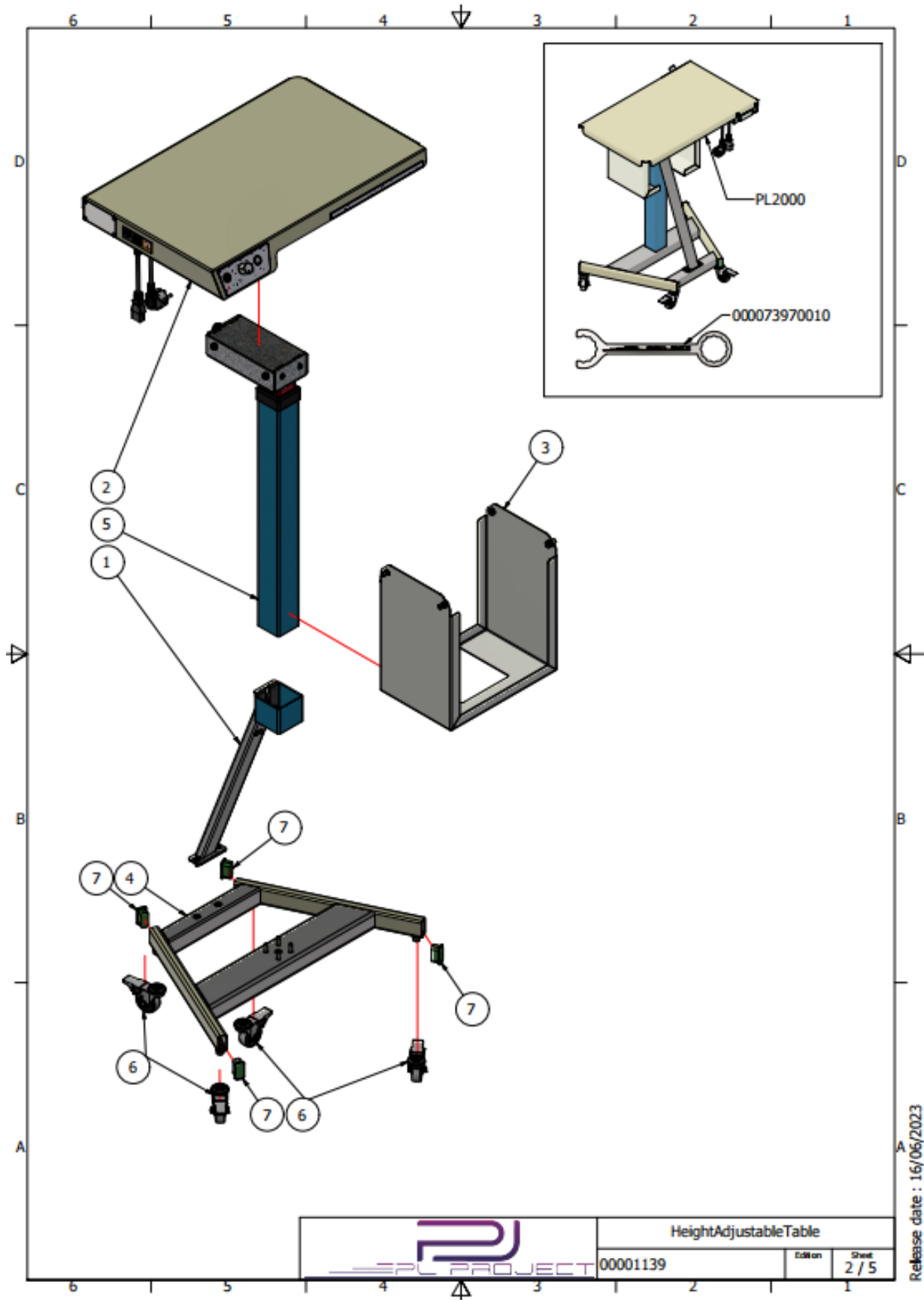



Figure 17 PL2000 Spare parts list page 2





PARTS LIST				
ITEM	QTY	ArticleNumber	DESCRIPTION	OPTION*
1	1	000011320010	Back support	SP
2	1	000011230020	Work table	SP
3	1	000012200010	Auxiliary stand	SP
4	1	000061540010	Floor base	SP
5	1	000011780040	Linear actuator	SP
6	4	000051800010	Support wheel	SP
7	4	000011410010	Floor support plastic cap	SP
		----	----	----
		PL2000	Work table with adjustable height	
Tools/Accessories				
		000073970010	19mm combination wrench for button	T
<p>*SP - Spare Part; C - Consumable; T- Tool; A - Accessory            **The terms depend on different factors i.e paints used etc.            Normally, the period of use should be longer than the specified above.</p> <p>This machine is safe and reliable. There is a risk of harm if it is not mounted properly or used by not trained personnel. Anyone involved in the relocation, mounting, maintenance and operation with the machine must be familiar with the corresponding instructions.</p>				
		HeightAdjustableTable		
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Figure 18 PL2000 Spare parts list page 3





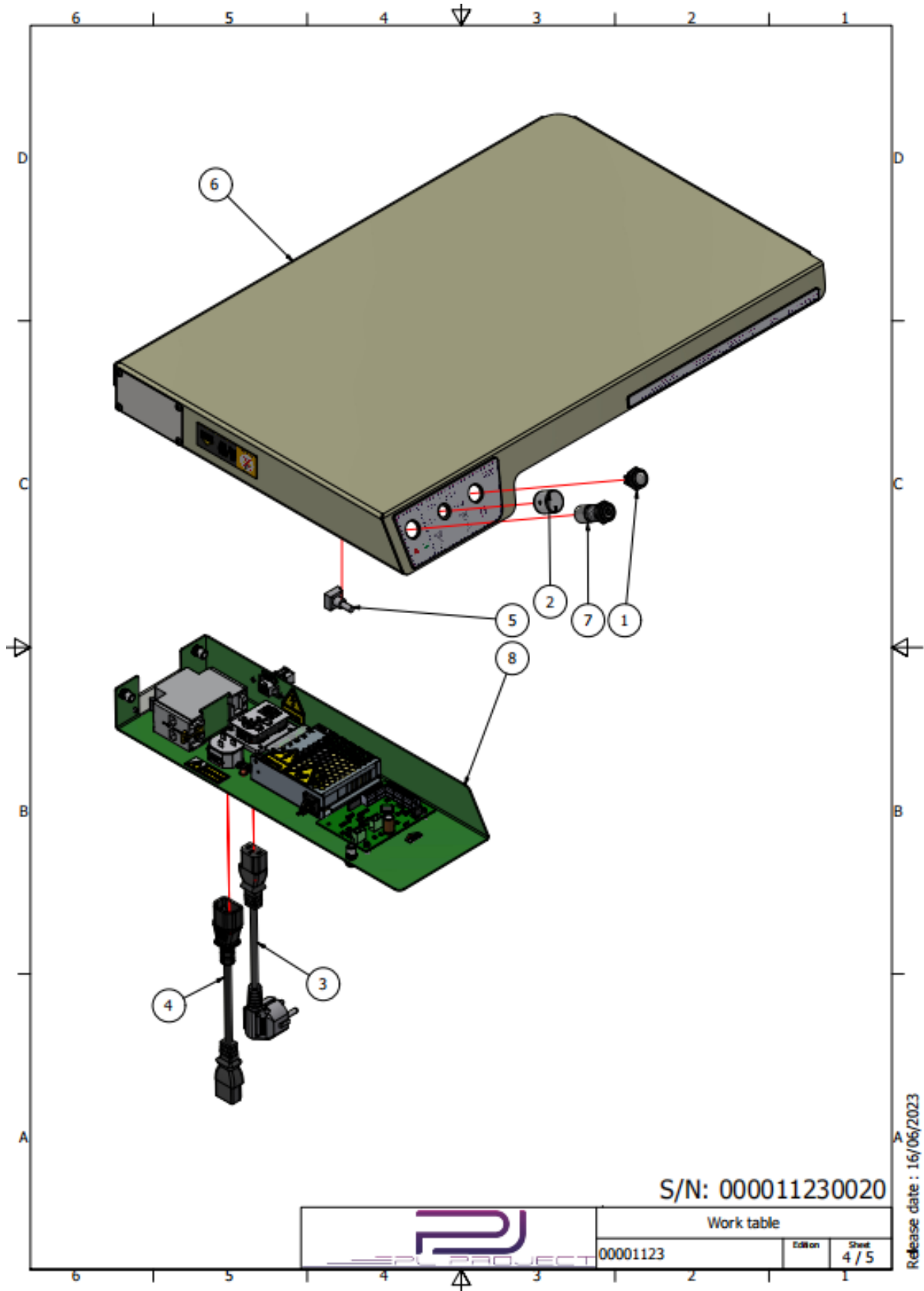


Figure 19 PL2000 Spare parts list page 4



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PARTS LIST				
ITEM	QTY	ArticleNumber	DESCRIPTION	OPTION*
1	1	000007420010	Metal button IP65 two-position no retention	SP
2	1	000011400010	Height adjustment knob	SP
3	1	000007410010	Power supply cable	SP
4	1	000011050010	Table to machine power extension cord	SP
5	1	000014310020	Potentiometer with cable	SP
6	1	000013760010	Table plot	SP
7	1	000016970010	Metal button IP65 two-position with hold with power symbol	SP
8	1	000011180020	Control module	SP

S/N: 000011230020

\*SP - Spare Part; C - Consumable; T- Tool; A - Accessory  
 \*\*The terms depend on different factors i.e paints used etc.  
 Normally, the period of use should be longer than the specified above.

This machine is safe and reliable. There is a risk of harm if it is not mounted properly or used by not trained personnel. Anyone involved in the relocation, mounting, maintenance and operation with the machine must be familiar with the corresponding instructions.


	Work table		
	00001123	Edition 2	Sheet 5 / 5

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**Figure 20 PL2000 Spare parts list page 5**



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## 8.2 Troubleshooting. Blocking and unblocking of the equipment

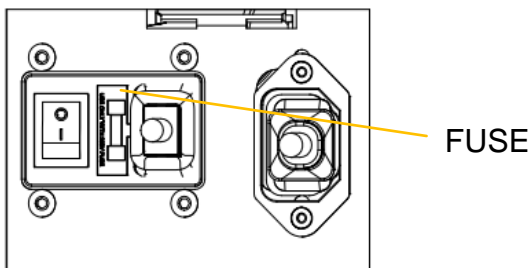
The machine doesn't have moving parts which are fast enough in order to issue an injury to the operating personnel.

Blocking of the table's movement could be issued due to overload (burnt fuse – see chapter 8.2.1), differential current protection tripping or malfunction. In the last case contact with PL Project Ltd. Service department is advised.

### 8.2.1 Changing fuse of the machine

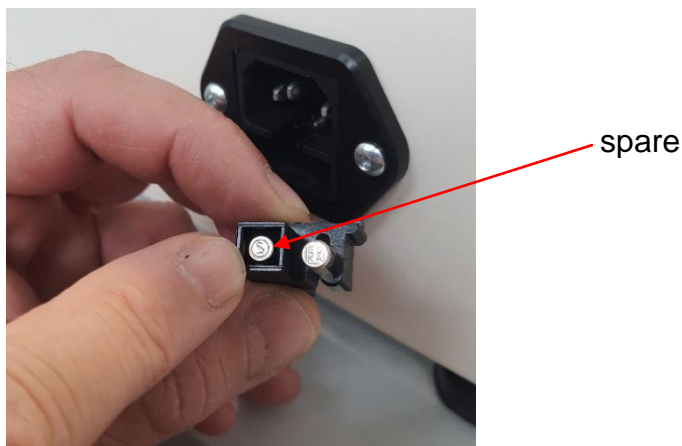
In case the lamp of the main switch doesn't lit after plugging the mains plug and switching on the cause could be defective fuse of the power supply inlet. Before calling the service, please try to exchange the fuse by a spare one.

Pull out the small tray marked with a "FUUSE" sign on the bottom of the machine.



**Figure 21 Removing fuse**

The tray contains two fuses. The one on in the small "box" is a spare.




**Figure 22 View of the fuse-holder**

Swap the spare one with the burnt and insert the tray back

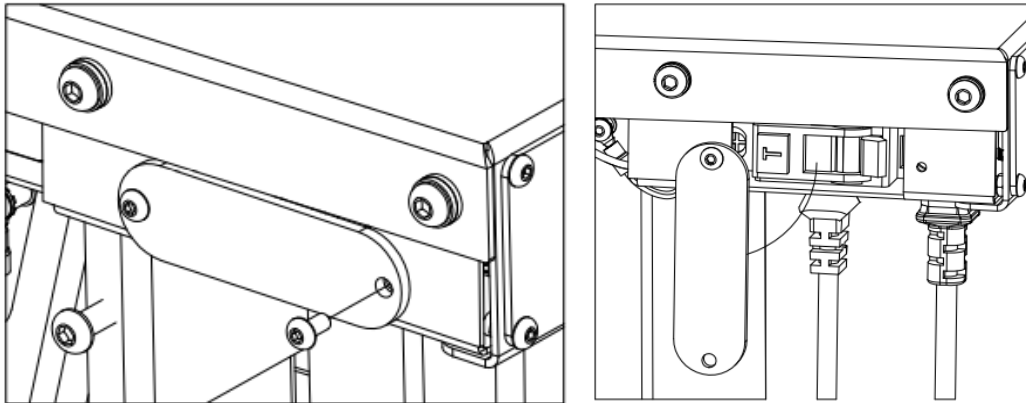
## 8.3 Reactivating the differential (residual) current protection after a trip

In order to protect the operating personnel from electrical hazard an automatic differential current circuit breaker is implemented in the table. This device breaks the circuit when a person comes under voltage from the machine. In this case the table remains without power supply. The activating of the general power switch does not cause the machine to operate.

In order to reactivate the residual current circuit breaker following steps are to be followed:

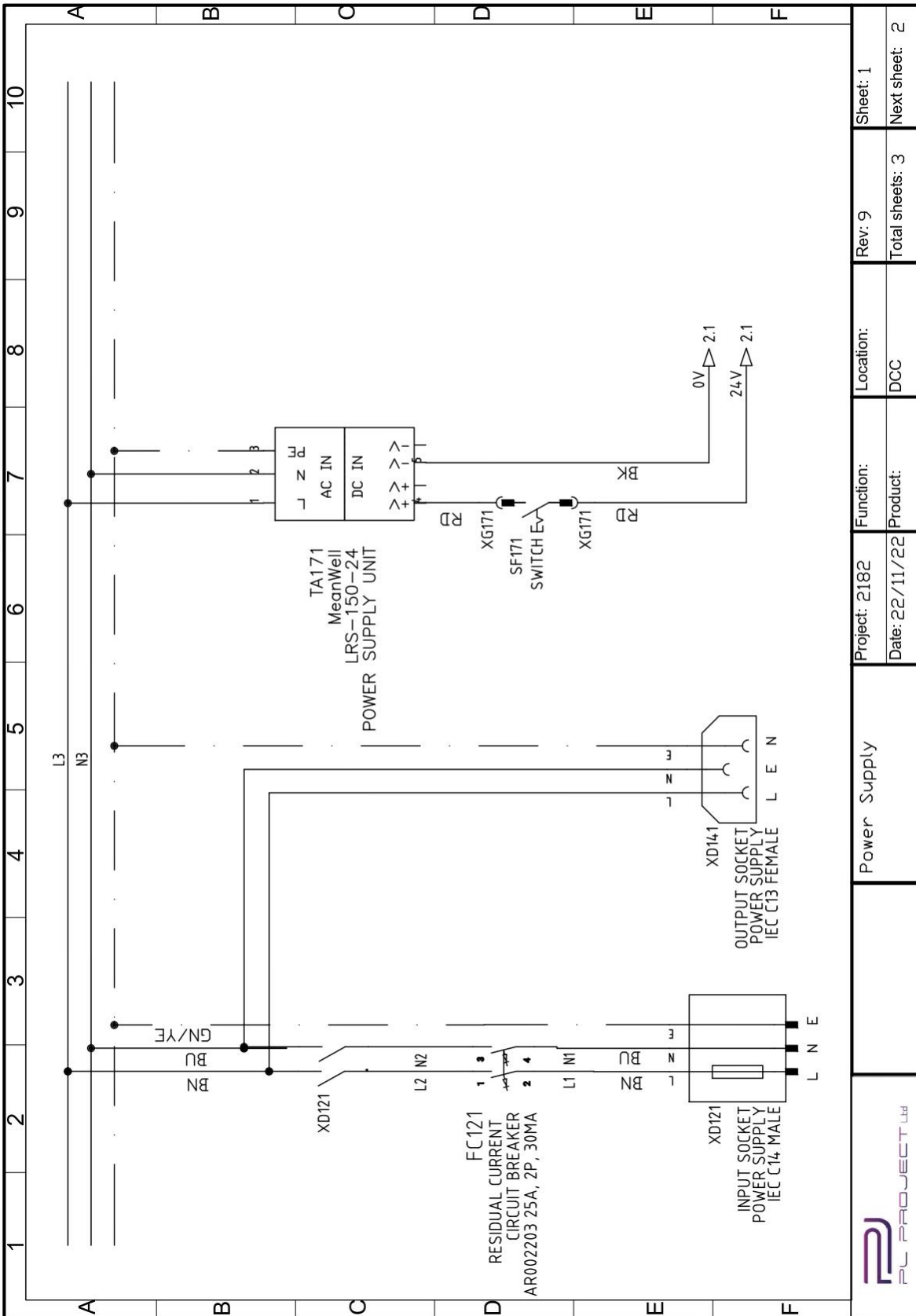
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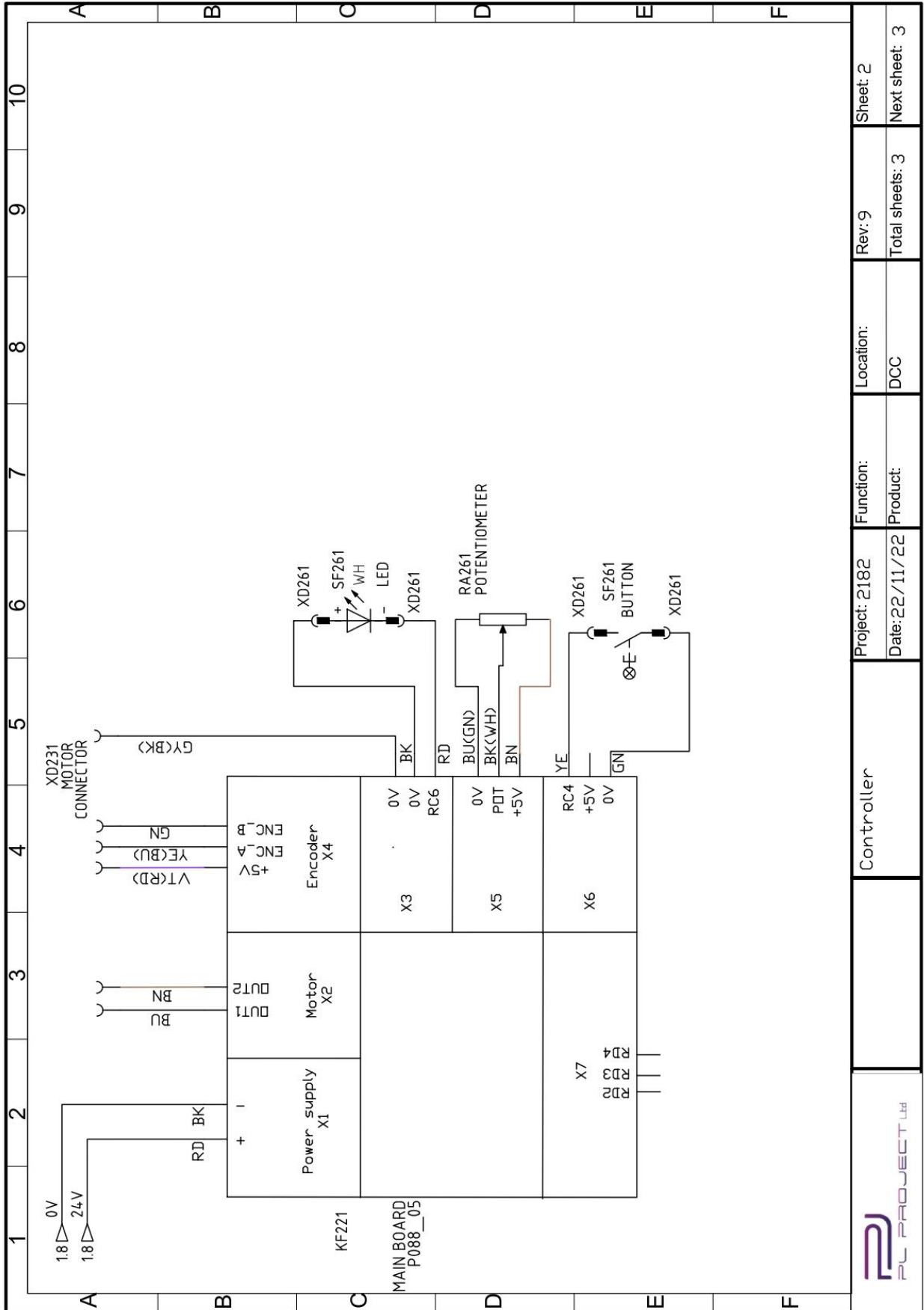
1. Ensure that the reason for the trip is removed and the fail situation is resolved. No person is allowed to be in touch with electrical conductors!
2. Open the small transparent lid on the rear side of the table - Figure 18
3. Activate the small blue lever (on Figure 18 is shown the inactive condition). If the protection is tripped a sign "OFF" is visible on the lever. If the protection is active a sign "ON" is readable on the lever.
4. Close again the transparent lid.



**Figure 23 Reactivating of the residual current protection**

### 9 Electrical circuit diagram





Sheet: 2

Rev: 9

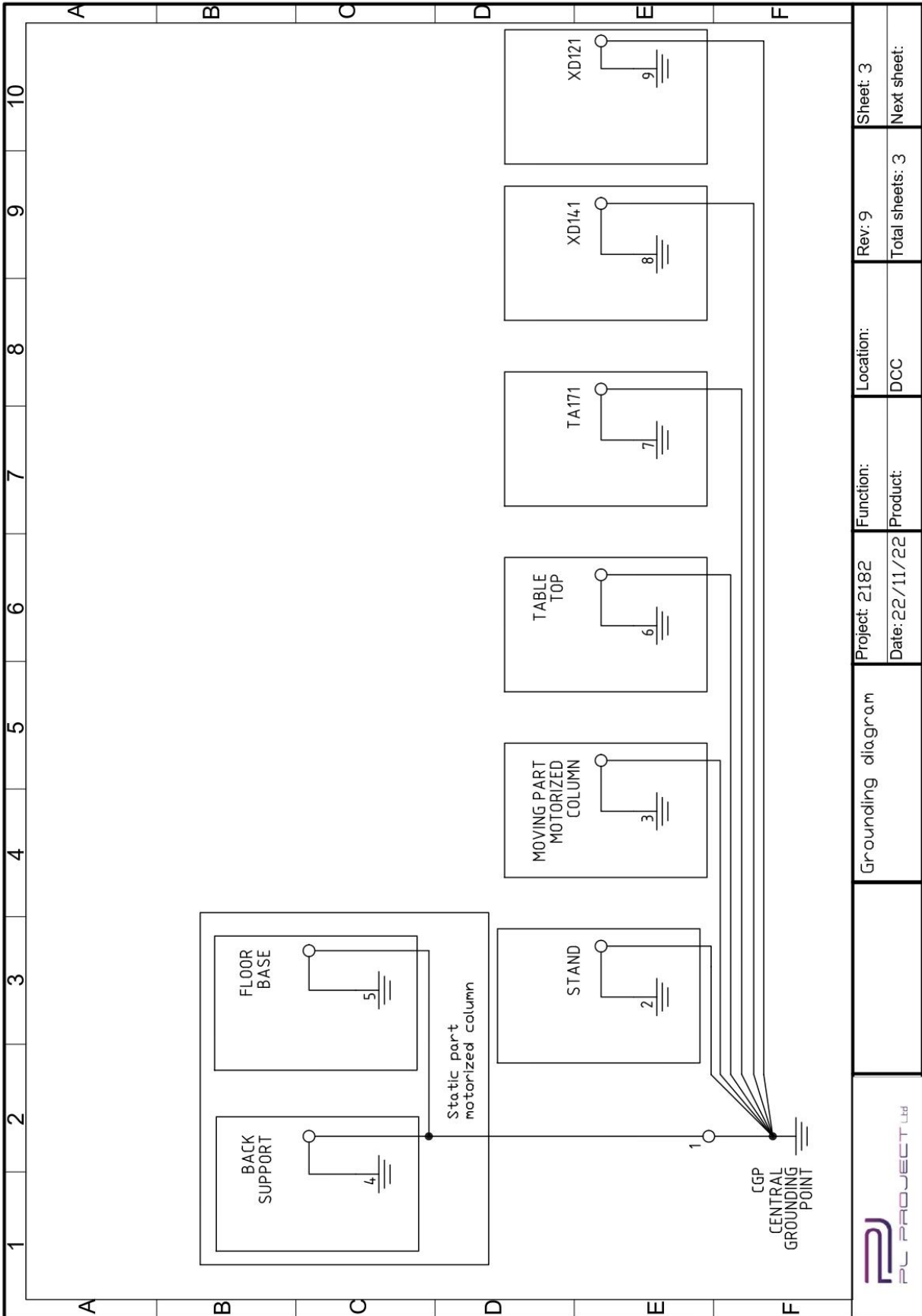
Location: DCC


Function: Product:

Project: 2182  
Date: 22/11/22



Controller





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## 10 Declaration of Conformity

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### Manufacturer's Declaration of Conformity

We: .....PL Project Ltd.  
.....21, Stefan Stambolov Blvd  
.....6400 Dimitrovgrad,  
.....BULGARIA

Person authorized to compile a technical file Lyubomir Borisov, 1 Kooperativna str., 6400 Dimitrovgrad, Bulgaria

Under our sole responsibility, hereby declare that the following products:

Manufacturer: PL Project Ltd,  
Name of product: Work Table with adjustable Height  
Models: ..... PL2000  
Product: ..... Work Table with adjustable Height PL2000, Serial No: .....

To which this Declaration applies, conform to the following applicable European Directives:

Machinery Directive	2006/42/EC
Low Voltage Directive	2014/35/EU
Electromagnetic Compatibility Directive	2014/30/EU

During the development and manufacturing, recommendations of the following harmonized standards were observed:

BDS EN ISO 12100:2011 Safety of machinery – General principles for design – Risk assessment and risk reduction;


Issued in Dimitrovgrad, Bulgaria, on 21.07.2023.

Name: Lyubomir Borisov  
Position: Technical Director

Signature:





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## 11 Address

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