



# LaboUI

## Instruction Manual

**Original Instructions**



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## 1 About this manual



### CAUTION

Struers equipment must only be used in connection with and as described in the Instruction Manual supplied with the equipment.



### Note

Read the Instruction Manual carefully before use.



### Note

If you want to view specific information in detail, see the online version of this manual.

## 2 Safety

### 2.1 Intended use

The device is for professional manual materialographic preparation (grinding or polishing) of materials for further materialographic inspection.

LaboUI is intended to be used in combination with:

- LaboPol-20
- LaboPol-30
- LaboPol-60

**Do not use the machine for the following**

Other equipment than stated in the section "Intended use".

**Model**

LaboUI

### 2.2 LaboUI safety precautions



#### 2.2.1

#### Read carefully before use

Ignoring this information and mishandling of the equipment can lead to severe bodily injuries and material damage.

### General safety precautions

1. The machine must be installed in compliance with local safety regulations. All functions on the machine and any connected equipment must be in working order.
2. This device must be mounted securely on the machine.
3. The operator must read the safety precautions and Instruction Manual, as well as relevant sections of the manuals for any connected equipment and accessories.
4. If you observe malfunctions or hear unusual noises, switch off the machine and call technical service.
5. In case of fire, alert bystanders and the fire brigade. Disconnect the electrical power supply. Use a powder fire extinguisher. Do not use water.
6. This machine must be operated and maintained only by skilled/trained personnel.
7. Always switch off the electrical power supply and remove the plug or power cable before dismantling the machine or installing additional components.
8. The machine must be disconnected from the electrical power supply before any service. Wait 5 minutes until residual potential on the capacitors is discharged.
9. Struers equipment must only be used in connection with and as described in the Instruction Manual supplied with the equipment.
10. If the equipment is subjected to misuse, incorrect installation, alteration, neglect, accident or incorrect repair, Struers will accept no responsibility for damage to the user or the equipment.
11. Dismantling of any part of the equipment, during service or repair, should always be performed by a qualified technician (electromechanical, electronic, mechanical, pneumatic, etc.)

### 2.3 Safety messages

Struers uses the following signs to indicate potential hazards.



#### **ELECTRICAL HAZARD**

This sign indicates an electrical hazard which, if not avoided, will result in death or serious injury.



#### **DANGER**

This sign indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

**WARNING**

This sign indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.

**CRUSHING HAZARD**

This sign indicates a crushing hazard which, if not avoided, could result in minor, moderate or serious injury.

**HEAT HAZARD**

This sign indicates a heat hazard which, if not avoided, can result in minor, moderate or serious injury.

**CAUTION**

This sign indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

**Emergency stop**

Emergency stop

**General messages****Note**

This sign indicates that there is a risk of damage to property, or a need to proceed with special care.

**Hint**

This sign indicates that additional information and hints are available.

**2.4****Safety messages in this manual****WARNING**

Struers equipment must only be used in connection with and as described in the Instruction Manual supplied with the equipment.

**CAUTION**

Keep clear of rotating parts during operation.



### **CAUTION**

When working at machines with rotating parts, take care to prevent clothes and/or hair from being caught by the rotating parts.

## **3 Get started**

### **3.1 Device description**

LaboUI is a control panel (grinding/polishing) which can be mounted on the following machines for manual materialographic preparation: LaboPol-20, LaboPol-30 and LaboPol-60.

On the control panel the operator can set the rotation speed of the preparation disc, start and stop the machine, control water application and the disc spin function.

The operator selects the grinding/polishing surface and the cooling fluid/abrasive suspension to be applied. The operator holds the specimen during the preparation.

The operator sets the rotation speed of the preparation disc before starting the process.

The operator starts the machine by pressing the **Start** button on the control panel.

Cooling water is applied automatically when the operator opens the water tap. The operator applies other fluids manually or by using a separate dosing unit.

The operator stops the machine by pressing the Stop button on the control panel.

The operator cleans the specimens before the next preparation step or inspection.

The machine must always be used with the splash guard in place.

If the emergency stop is activated, the power to all moving parts is cut.

## 3.2 LaboUI

### Front view



- A Control panel
- B Disc speed control
- C Control panel column

## 4 Transport and storage

If, at any time after the installation, you have to move the unit or place it in storage, there is a number of guidelines we recommend that you follow.

- Package the unit securely before transportation. Insufficient packaging could cause damage to the unit and will void the warranty. Contact Struers Service.
- We recommend that you use the original packaging and fittings.

### 4.1 Long-term storage or shipping

For instructions on how to prepare the unit for long-term storage or shipping, see the specific machine manual.

Pay specific attention to the following:

- Disconnect the unit from the electrical power supply.
- Remove the control panel or specimen mover.
- Place the machine and accessories in their original packaging.

## 5 Installation

### 5.1 Unpack the machine



**Note**

We recommend that you keep all original packaging and fittings for future use.

1. Cut the packing tape on the top of the box.
2. Remove the loose parts.
3. Remove the unit from the box.

### 5.2 Check the packing list

Optional accessories may be included in the packing box.

The packing box contains the following items:

Pcs.	Description
1	LaboUI
1	Instruction Manual set

### 5.3 Installation - LaboUI



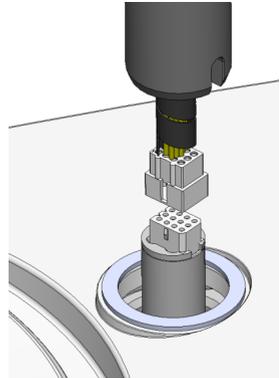
**Note**

This device must be mounted securely on the machine.

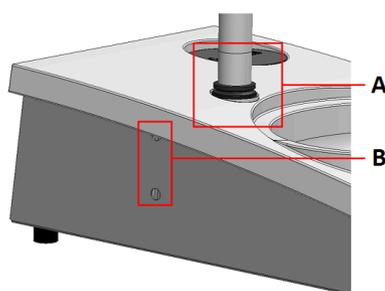
**Procedure**

Install the control panel in the connection hole of the machine.

1. Remove the plastic disc protecting the communication cable.
2. Connect the communication cable on the column to the connection port on the machine.
3. Guide the column down into the connection hole.



4. Slide the black V-ring down the column until it covers the connection hole.
5. Use the Allen key to tighten the two fastening screws. Do not tighten the screws completely.
6. Cover the holes with the two cover caps.



Allen key and cover caps are supplied with LaboPol.

- A** V-ring  
**B** Fastening screws

## 5.4 Noise and vibration levels

For information about noise and vibration levels, see the specific machine manual.

## 6 Operate the device

For instructions on how to operate the device, see the specific machine manual.

See also the section "Intended use" for the specific machine manual.

## 6.1 Control panel functions



### CAUTION

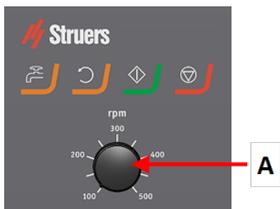
Keep clear of rotating parts during operation.



### CAUTION

When working at machines with rotating parts, take care to prevent clothes and/or hair from being caught by the rotating parts.

A Disc speed control



Button	Function
	<p><b>Disc rotation</b></p> <ul style="list-style-type: none"> <li>Starts rotation of the disc (<b>Spin</b> function).</li> </ul>
	<p><b>Water</b></p> <p>Manual override</p> <ul style="list-style-type: none"> <li>Press the button to apply water. Water is applied when no process is running.</li> <li>Press the button again to stop applying water.</li> </ul>
	<p><b>Start</b></p> <ul style="list-style-type: none"> <li>Starts the preparation process.</li> </ul>

Button	Function
	<p><b>Stop</b></p> <ul style="list-style-type: none"> <li>Stops the preparation process.</li> </ul>

## 7 Maintenance and service

### Technical questions and spare parts

If you have technical questions or when you order spare parts, state serial number and voltage/frequency. The serial number and the voltage are stated on the name plate of the machine.

### 7.1 General cleaning

To ensure a longer lifetime for your machine, we strongly recommend regular cleaning.



#### Note

Do not use a dry cloth as the surfaces are not scratch resistant. Grease and oil can be removed with ethanol or isopropanol.



#### Note

Do not use acetone, benzol or similar solvents.

### If the machine is not to be used for a longer period of time

- Clean the machine and all accessories thoroughly.

### 7.2 Daily

- Clean all accessible surfaces with a soft, damp cloth.

### 7.3 Weekly

- Clean all accessible surfaces with a soft damp cloth and common household detergents.

## 7.4 Spare parts

### Technical questions and spare parts

If you have technical questions or when you order spare parts, state serial number and voltage/frequency. This information is stated on the name plate of the machine.

For further information, or to check the availability of spare parts, contact Struers Service. Contact information is available on [Struers.com](https://www.struers.com).

## 7.5 Service and repair

We recommend that a regular service check be carried out yearly or after every 1500 hours of use.

When the machine is started up, the display shows information about total operation time and the machines service information.

After 1500 hours of operation time, the display will show a message reminding the user that a service check should be scheduled.



### Note

Service must only be performed by a qualified technician (electromechanical, electronic, mechanical, pneumatic, etc.). Contact Struers Service.

## 7.6 Disposal



Equipment marked with a WEEE symbol contains electrical and electronic components and must not be disposed of as general waste.

Contact your local authorities for information on the correct method of disposal in accordance with national legislation.

For disposal of consumables and recirculation fluid, follow local regulations.

## 8 Troubleshooting

For troubleshooting guidance, see the specific machine manual.

## 9 Technical data

### 9.1 Technical data

<b>Safety standards/directives/legislation</b>	See the Declaration of Conformity/Instruction manual	
<b>REACH</b>	For information about REACH, contact your local Struers office.	
<b>Operating environment</b>	Surrounding temperature	
	During operation	5-40 °C (41-104 °F)
	During transport	0-60 °C (32-104 °F)
	Humidity	< 85% RH non-condensing
<b>Power supply</b>	Voltage/frequency	1x24 V
	Power inlet	Connected directly to Labopol
	Current	
	Nominal	0.1 A
	Max.	0.1 A
	Current, largest load	0.1 A

<b>Dimensions and weight</b>	Width	15 cm (5.9")
	Depth	13.5 cm (5.3")
	Height	37.6 cm (14.8")
	Height (with open cover)	
	Weight	0.8 kg (1.8 lbs)
<b>Noise level</b>	A-weighted sound emission pressure level at workstations	See the LaboPol technical data
<b>Noise level</b>	<p>The figures quoted are emission levels and are not necessarily safe working levels. While there is a correlation between the emission and exposure levels, this cannot be used reliably to determine whether or not further precautions are required. Factors that influence the actual level of exposure of the workforce include characteristics of the work room, the other sources of noise, etc., i.e. the number of machines and other adjacent processes. Also, the permissible exposure level can vary from country to country. This information, however, will enable the user of the machine to make a better evaluation of the hazard and risk.</p>	
<b>Vibration level</b>	Declared vibration emission	N/A

## 9.2 Diagrams - LaboUI

Title	No.
LaboUI, Block diagram	<a href="#">16203050 B</a>
Circuit diagram	See the diagram number on the name plate of the equipment, and contact Struers Service via <a href="#">Struers.com</a> .



## 9.3 Legal and regulatory information

### FCC notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

## 10 Manufacturer

Struers ApS  
Pederstrupvej 84  
DK-2750 Ballerup, Denmark  
Telephone: +45 44 600 800  
Fax: +45 44 600 801  
[www.struers.com](http://www.struers.com)

### Responsibility of the manufacturer

The following restrictions should be observed, as violation of the restrictions may cause cancellation of Struers legal obligations.

The manufacturer assumes no responsibility for errors in the text and/or illustrations in this manual. The information in this manual is subject to change without notice. The manual may mention accessories or parts not included in the supplied version of the equipment.

The manufacturer is to be considered responsible for effects on safety, reliability, and performance of the equipment only if the equipment is used, serviced, and maintained in accordance with the instructions for use.



## Declaration of Incorporation of Partly Completed Machinery

Manufacturer	Struers ApS • Pederstrupvej 84 • DK-2750 Ballerup • Denmark
Name	LaboUI
Model	N/A
Function	Control panel for LaboPol-20/-30/-60 grinding/polishing machine
Type	620
Cat. no.	06206901

The above listed machinery is only intended to be used with Struers machinery and consumables, and shall not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with this regulation, where appropriate.

Serial no.



Module H, according to global approach

**EU**

We declare that the product mentioned is in conformity with the following legislation, directives and standards:

<b>2011/65/EU</b>	EN 63000:2018
<b>2014/30/EU</b>	EN 61000-3-2:2014, EN 61000-3-3:2013, EN 61000-6-1:2007, EN 61000-6-3:2007 EN 61000-6-3:2007/A1:2011, EN 61000-6-3-A1-AC:2012
<b>2014/35/EU</b>	EN 60204-1:2018, EN 60204-1-2018/Corr.:2020
<b>Additional standards</b>	NFPA 79, FCC 47 CFR Part 15 Subpart B

Authorized to compile technical file/  
Authorized signatory

Date: [Release date]

en For translations see  
bg За преводи вижте  
cs Překlady viz  
da Se oversættelser på  
de Übersetzungen finden Sie unter  
el Για μεταφράσεις, ανατρέξτε στη διεύθυνση  
es Para ver las traducciones consulte  
et Tõlked leiata aadressilt  
fi Katso käännökset osoitteesta  
fr Pour les traductions, voir  
hr Za prijevode idite na  
hu A fordítások itt érhetőek el  
it Per le traduzioni consultare  
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lt Vertimai patalpinti  
lv Tulkojumus skatīt  
nl Voor vertalingen zie  
no For oversettelser se  
pl Aby znaleźć tłumaczenia, sprawdź  
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sk Preklady sú dostupné na stránke  
sl Za prevode si oglejte  
tr Çeviriler için bkz  
zh 翻译见

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