

# LaboUI

## Instruction Manual

**Original Instructions**



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# Table of Contents

<b>1</b>	<b>About this manual</b>	<b>5</b>
<b>2</b>	<b>Safety</b>	<b>5</b>
2.1	Intended use	5
2.2	LaboUI safety precautions	5
2.2.1	Read carefully before use	5
2.3	Safety messages	6
2.4	Safety messages in this manual	7
<b>3</b>	<b>Getting started</b>	<b>8</b>
3.1	Device description	8
3.2	LaboUI	8
<b>4</b>	<b>Transport and storage</b>	<b>9</b>
4.1	Long-term storage or shipping	9
<b>5</b>	<b>Installation</b>	<b>9</b>
5.1	Unpacking	9
5.2	Checking the packing list	9
5.3	Installation - LaboUI	10
5.4	Noise and vibration levels	10
<b>6</b>	<b>Operating the device</b>	<b>11</b>
6.1	Control panel functions	11
<b>7</b>	<b>Maintenance and service</b>	<b>12</b>
7.1	General cleaning	12
7.2	Daily	12
7.3	Weekly	12
7.4	Spare parts	12
7.5	Service and repair	13
7.6	Disposal	13

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<b>8</b>	<b>Troubleshooting</b> .....	<b>13</b>
<b>9</b>	<b>Technical data</b> .....	<b>14</b>
9.1	Technical data - LaboUI .....	14
9.2	Diagrams - LaboUI .....	14
9.3	Legal and regulatory information .....	17
<b>10</b>	<b>Manufacturer</b> .....	<b>17</b>
	<b>Declaration of Conformity</b> .....	<b>18</b>

# 1 About this manual

## Instruction Manuals

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 wish 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 prior to 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.

**CAUTION**

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

**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 Getting 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.

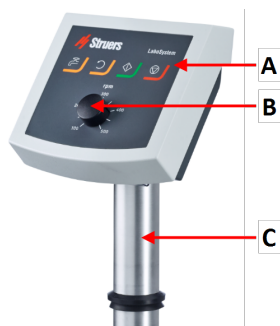
The operator cleans the specimens before the next preparation step or inspection.

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.
- Struers recommends that all original packaging and fittings are kept for future use.

### 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 Unpacking



**Note**

Struers recommends that all original packaging and fittings are kept 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 Checking 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

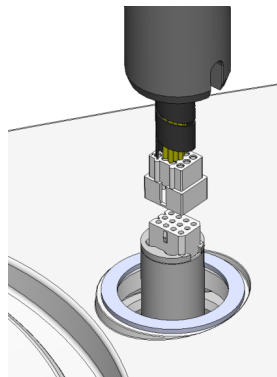


**Note**  
This device must be mounted securely on the machine.

#### Procedure

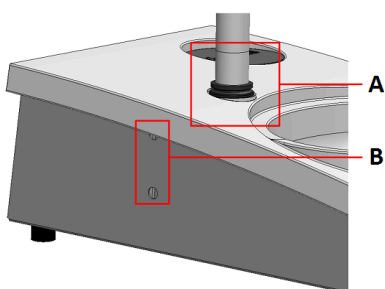
Install the control panel in the connection hole of the machine.

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 Operating 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



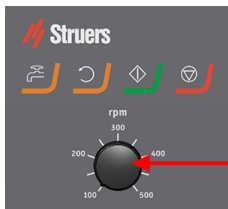
**CAUTION**

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

**A**

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> 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>
	<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 type plate of the machine.

### 7.1 General cleaning

To ensure a longer lifetime for your machine, Struers strongly recommends regular cleaning.



**Note**

Do not use a dry cloth as the surfaces are not scratch resistant.



**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

For specific safety related parts, see the section "Safety Related Parts of the Control System (SRP/CS)" in the section "Technical data" in this manual.

### 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 type 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

Struers recommends 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 Struers engineer or a qualified technician (electromechanical, electronic, mechanical, pneumatic, etc.).

Contact Struers Service.

### Service check

Struers offers a range of comprehensive maintenance plans to suit the requirements of our customers. This range of services is called ServiceGuard.

The maintenance plans include equipment inspection, replacement of wear parts, adjustments/calibration for optimal operation, and a final functional test.

## 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

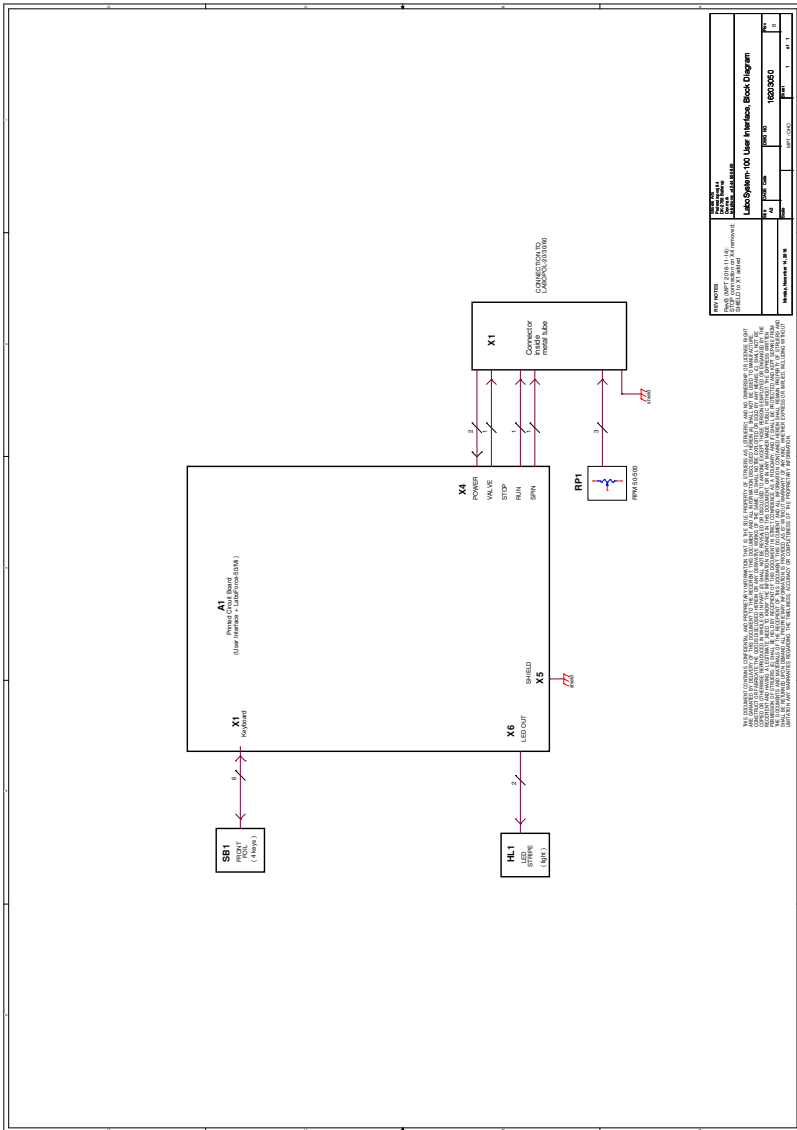
### 9.1 Technical data - LaboUI

Subject	Specifications	
<b>Safety standards</b>	See the Declaration of Conformity	
<b>Noise level</b>	See the noise level stated for: LaboPol	
<b>Operating environment</b>	Surrounding temperature	5-40°C/41-104°F
	Humidity	< 85 % RH non-condensing
<b>Storage and transport conditions</b>	Surrounding temperature	0 – 60°C/32 – 140°F
	Humidity	< 85 % RH non-condensing
<b>Power supply</b>	LaboUI is connected directly to LaboPol	
<b>Dimensions and weight</b>	<b>Width</b>	15 cm/5.9"
	<b>Depth</b>	13.5 cm/5.3"
	<b>Height</b>	37.6 cm/14.8"
	<b>Weight</b>	0.8 kg/1.8 lbs

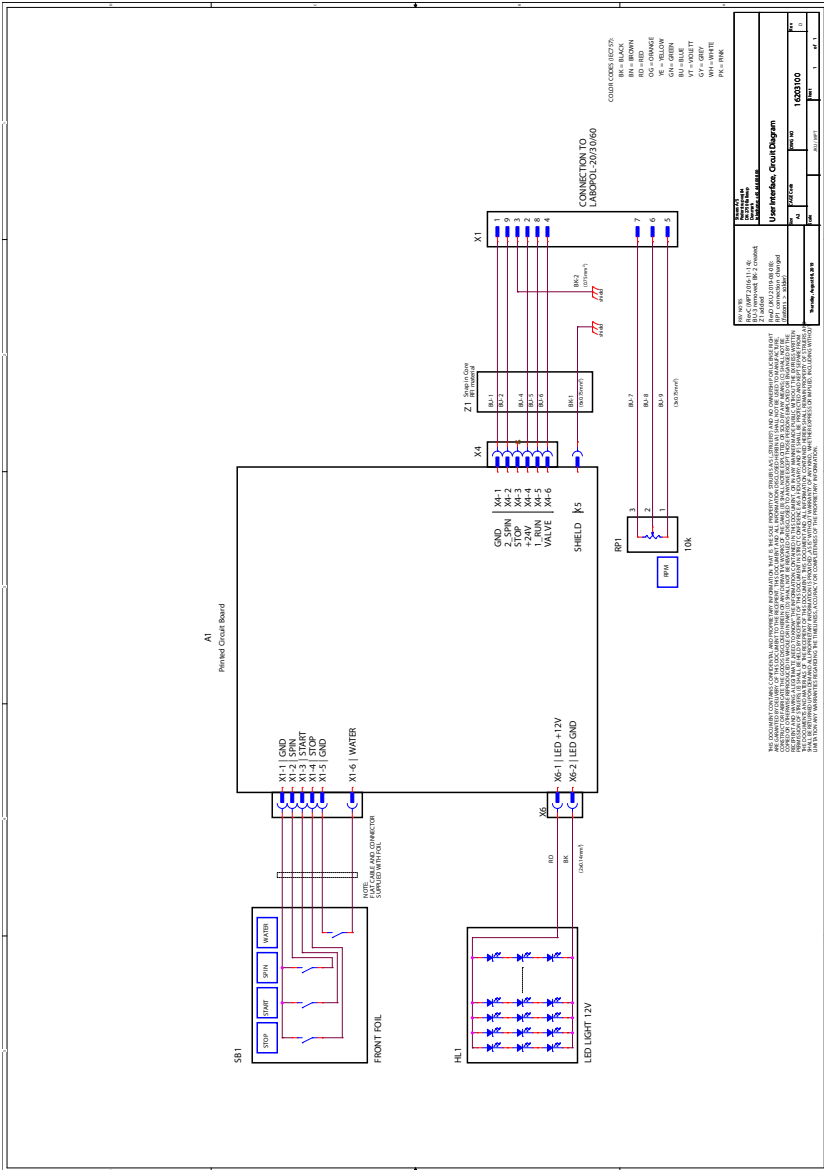
### 9.2 Diagrams - LaboUI

Title	No.
LaboUI, Block diagram	<a href="#">16203050 B</a>
LaboUI, Circuit diagram	<a href="#">16203100 D</a>

16203050 B



## 16203100 D





## 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.

Struers ApS  
Pederstrupvej 84  
DK-2750 Ballerup, Denmark

# Declaration of Conformity

EU / UE / EL / EC / EE / ES / EÜ / AB

Manufacturer / Производител / Výrobce / Producent / Hersteller / Κατασκευαστής / Fabricante / Tootja / Valmistaja / Fabricant / Proizvođač / Gyártó / Fabbicante / Gamintojas / Ražotājs / Fabrikant / Producent / Fabricante / Producătorul / Výrobca / Proizvajalec / Tillverkare / 販売元 / 제조사 / Produsent / Ирогoвители / Imalatçı / 制造商

Декларация за съответствие	Vaatimustenmukaisuusvakuutus	Verklaring van overeenstemming	適合宣言書
Prohlášení o shodě	Déclaration de conformité	Deklaracija zgodnosti	적합성 선언서
Overensstemmelseserklæring	Izjava o skladnosti	Declaração de conformidade	Samsvarserklæring
Konformitátserklárung	Megfelelőségi nyilatkozat	Declarație de conformitate	Заявление о соответствии
Δήλωση συμμόρφωσης	Dichiarazione di conformità	Vyhlasenie o zhode	Uygunluk Beyanı
Declaración de conformidad	Aitiktities deklaracija	Izjava o skladnosti	符合性声明
Vastavusdeklaratsioon	Atbilstības deklarācija	Intyg om överensstämmelse	

Name / Име / Název / Navn / Name / Oвoзл / Nombre / Nimetus / Nimi / Nom / Naziv / Név / Nome / Pavadinimas / Nosaukums / Naam / Nazwa / Nome / Denumirea / Názov / Ime / Namn / 名前 / 제품명 / Наименование / Adı / 名称 LaboUJ

Model / Модел / Model / Model / Modell / Μοντέλο / Modelo / Model / Malli / Modèle / Model / Modell / Modello / Modelis / Modelis / Model / Model / Modelo / Modelul / Model / Model / Modell / モデル / 모델 / Модель / 型号 LaboUJ

Function / Функция / Functie / Funktion / Funktion / Αειτουργία / Función / Functsoon / Toiminto / Fonctio / Funkcija / Funkció / Funzione / Funkcija / Funkcija / Functie / Função / Functja / Functja / Functia / Functia / Funktion / 機能 / 기능 / Funksjon / Назначение / Fonskjon / 功能 Control panel for LaboPol-20, LaboPol-30, LaboPol-60 (Grinding/Polishing machine)

Type / Тип / Typ / Type / Typ / Τύπος / Tipo / Tüüp / Туурпи / Type / Tip / Tipus / Tipo / Tipas / Tips / Type / Typ / Tipo / Tipul / Typ / Tip / Typ / 種類 / 유형 / Type / Тип / Tür / 类型 06206901

Serial no. / Серийн номер / Výrobní číslo / Seriennummer / Seriennummer / Σειριακόσ αριθμός / N.º de serie / Seerianumber / Sarjanro / No de série / Serijski broj / Sorozatszám / N. serie / Serijos Nr. / Sērijas Nr. / Serien. / Numer serijny / N.º de série / Nr. serie / Výrobné č. / Serijaska št. / Seriennummer / シリアル番号 / 일련번호 / Serient. / Серийный номер / Serí no. / 序列号



Module H, according to global approach

en We declare that the product mentioned is in conformity with the following directives and standards:	es Declaramos que el producto mencionado cumple con las siguientes directivas y normativas:	it Dichiariamo che il prodotto citato è conforme ai seguenti standard e direttive:	pt Declaramos que o produto mencionado está em conformidade com as seguintes normas e diretvas:	ja 弊社はこの指定製品が以下の指令および基準に適合することを宣言します。
bg Декларираме, че посоченият продукт е в съответствие със следните директиви и стандарти:	et Kinnitame, et nimetatud toode vastab järgmistele direktiividele ja standarditele:	lt Pareiškiamė, kad nurodytas gaminyso atitinka šias direktyvas ir standartus:	ro Declarăm că produsul menționat este în conformitate cu următoarele directive și standarde:	ko 해당 선언서 상의 제품은 다음 지침 및 기준에 적합함을 선언합니다.
cs Tímto prohlašujeme, že uvedený výrobek je v souladu s následujícími směrniciemi a normami:	fi Väakuutamme, että mainittu tuote on seuraavien direktiivien ja standardien mukainen:	lv Mēs apstiprinām, ka minētais produkts atbilst šādām direktīvām un standartiem:	sk Vyhlasujeme, že uvedený výrobok je v súlade s týmito smernicami a normami:	no Vi erklærer at produktene som er nevnt er i samsvar med følgende direktiver og standarder:
da Vi erklærer herved, at det nævnte produkt er i overensstemmelse med følgende direktiver og standarder:	hr Izjavljujemo da je spomenuti proizvod sukladan sljedećim direktivama i standardima:	nl Wij verklaren dat het vermelde product in overeenstemming is met de volgende richtlijnen en normen:	sl Potrijujemo, da je omenjeni izdelek v skladu z naslednjimi direktivami in standardi:	ru Настоящим заявляем, что указанная продукция отвечает требованиям перечисленных далее директив и стандартов:
de Wir erklären, dass das genannte Produkt den folgenden Richtlinien und Normen entspricht:	hu Kijelentjük, hogy jelen termék megfelel a következő irányelveknek és szabványoknak:	pl Oświadczamy, że wymieniony produkt jest zgodny z następującymi dyrektywami i normami:	sv Vi intygar att den angivna produkten överensstämmer med följande direktiv och standarder:	tr Belirtilen ürünün aşağıdaki direktiflere ve standartlara uygun olduğunu beyan ederiz:
el Δηλώνουμε ότι το εν λόγω προϊόν είναι σύμφωνα με τις ακόλουθες οδηγίες και πρότυπα:				zh 我们特此声明上述产品符合以下指令和标准:

<b>2011/65/EU</b>	EN 50581:2012
<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-A1:2011, EN 61000-6-3-A1-AC:2012
<b>2014/35/EU</b>	EN 60204-1:2006, EN 60204-1-A1:2009, EN 60204-1/Corr.:2010
<b>Additional standards</b>	NFPA 79, FCC 47 CFR Part 15 Subpart B

Authorized to compile technical file/  
Authorized signatory

Date: [Release date]



