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# Primeprint PPU

Instructions for Use

English



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# 1 General data

Please read this document completely and follow the instructions exactly. You should always keep it within reach.

Original language of the present document: German.

## 1.1 Dear Customer,

Thank you for your purchase of this Primeprint PPU® unit from Dentsply Sirona.

This unit enables you to use computer aided manufacturing of dental applications.

Improper use and handling can create hazards and cause damage. Please therefore read and follow these operating instructions carefully. Always keep them within easy reach.

Also pay attention to the safety instructions to prevent personal injury and material damage.

Your  
Primeprint PPU team,

## 1.2 Contact data

### Dentsply Sirona Product service

Log in to register your units and make service requests:  
<https://dentsplysirona.service-pacemaker.com/>

### Manufacturer's address



Sirona Dental Systems GmbH  
Fabrikstrasse 31  
64625 Bensheim  
Germany

Tel.: +49 (0) 6251/16-0  
Fax: +49 (0) 6251/16-2591  
E-Mail: [contact@dentsplysirona.com](mailto:contact@dentsplysirona.com)  
[www.dentsplysirona.com](http://www.dentsplysirona.com)

## 1.3 General information about this operating manual

### **Follow the instructions for use**

Please familiarize yourself with the unit by reading through these instructions for use before putting it into operation. It is essential that you comply with the warning and safety information listed.

### **Retain documents**

Keep the instructions for use so that they are always at hand in case you or another user requires information at a later point in time. Save the instructions for use on the PC or print them out.

If you sell the unit, make sure that the instructions for use are included with it either as a hard copy or on an electronic storage device so that the new owner can familiarize himself with its functions and the specified warning and safety information.

### **"Download Center" for technical documents**

We have set up a "Download Center" for the technical documents at [dentsplysirona.com/ifu](https://dentsplysirona.com/ifu). From here, you can download these instructions for use along with other documents. Please complete the online form if you would like a hard copy of the instructions for use or operator's manual. We would be happy to send you a printed copy, free of charge.

### **Help**

If you need help despite having thoroughly studied the instructions for use, please contact your dental depot.

## 1.4 General conventions and structure of the document

### 1.4.1 Structure of the document

#### 1.4.1.1 Identification of danger levels

To prevent personal injury and material damage, please observe the warning and safety information provided in these operating instructions. Such information is highlighted as follows:

#### **DANGER**

An imminent danger that could result in serious bodily injury or death.

#### **WARNING**

A possibly dangerous situation that could result in serious bodily injury or death.

#### **CAUTION**

A possibly dangerous situation that could result in minor or moderate bodily injury.

#### **NOTE**

A possibly harmful situation which could lead to damage of the product or an object in its environment.

#### **IMPORTANT**

Application instructions and other important information.

**Tip:** Information on making work easier.

### 1.4.1.2 Formats and symbols used

The formats and symbols used in this document have the following meaning:

<ul style="list-style-type: none"> <li>✓ Prerequisite</li> <li>1. First action step</li> <li>2. Second action step</li> <li>or</li> <li>➤ Alternative action</li> <li>↵ Result</li> <li>➤ Individual action step</li> </ul>	Request for action.
see "Formats and symbols used [→ 8]"	Identifies a reference to another text passage and specifies its page number.
• List	Identifies a list.
"Command / menu item"	Indicates commands, menu items or quotations.

### 1.4.2 Notes to the repository

It is mandatory to keep this operating manual in an easily accessible place for the purpose of later reference. In the event of a sale or transfer of the device to another user, make sure that the device is supplied along with the operating manual, so that the new owner can get acquainted with the operation and the appropriate precautions and warnings

## 1.5 Scope of these Operating Instructions

### Equipment options

This document describes the full version of your system. It may therefore cover components that are not included in the system you purchased.



## 1.6 Warranty and liability

**Maintenance** In the interest of the safety and health of patients, users or third parties, it is necessary that maintenance work is carried out at fixed time intervals to ensure the operational safety and reliability of your product.

The operator must ensure the implementation of the maintenance work.

As a manufacturer of electro-medical equipment, we can consider ourselves responsible for the safety characteristics of the device only if maintenance and repairs are carried out only by us or by companies authorized explicitly by us for this purpose and if components are replaced with original spare parts in case of failure.

**Exclusion of liability** If the operator does not meet the obligation to carry out such maintenance or fault messages are ignored, Dentsply Sirona or its authorized dealer does not assume any liability for damage caused.

## 1.7 Legend



Year of manufacture



Product disposal symbol (see "Disposal [→ 68]").

### Accompanying documents

This symbol can be found on the rating plate on the unit.



Meaning: Observe the Operating Instructions when operating the unit.



This symbol can be found on the rating plate on the unit.

Meaning: The accompanying documents are available on the Dentsply Sirona homepage.

### Electrostatic discharge (ESD)

Connector pins or sockets bearing ESD warning labels must not be touched or interconnected without ESD protective measures. See also "Electrostatic charge [→ 17]" and "Electromagnetic compatibility".



### Disconnection of the power supply during maintenance work

If the device-sided electronics box must be opened during maintenance work, this may be done only after disconnection of the power supply to the device.



### General danger notice

Observe the Operating Instructions.



Wear protective gloves.



"Hot surface" symbol



This symbol can be found on the door of the unit.

Meaning: No heavy loads.

See information in section "Product-specific safety instructions [→ 19]".



### Symbols on the packaging

Take note of the following symbols on the packaging:



Up



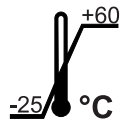
Keep dry



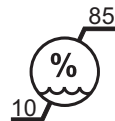
Fragile; handle with care



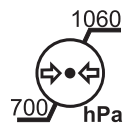
Stack limit



Temperature during storage and transport



Relative humidity during storage and transport



Air pressure during storage and transport

## 2 Safety instructions

### 2.1 Basic safety information

#### 2.1.1 Prerequisites

##### NOTE

###### Important information on building installation

In order to prevent the risk of an electric shock, this unit must only be connected to a supply mains with a ground wire.

The building installation must be performed by a qualified expert in compliance with the national regulations.

##### NOTE

###### Restrictions regarding installation site

The system is not intended for operation in areas subject to explosion hazards.

##### NOTE

###### Do not damage the unit!

The unit can be damaged if opened improperly.

It is expressly prohibited to open the unit with tools!

#### 2.1.2 Maintenance and repair

As manufacturers of dental instruments and laboratory equipment, we can assume responsibility for the safety properties of the unit only if the following points are observed:

- The maintenance and repair of this unit may be performed only by Dentsply Sirona or by agencies authorized by Dentsply Sirona.
- Components which have failed and influence the safety of the unit must be replaced with original (OEM) spare parts.
- Only original cables may be used, so that EMC requirements are met.

Please request a certificate whenever you have such work performed. It should include:

- The type and scope of work.
- Any changes made in the rated parameters or working range.
- Date, name of company and signature.

#### 2.1.3 Modifications to the product

Modifications to this product which may affect the safety of the operator, patients or third parties are prohibited by law!

### 2.1.4 Accessories

In order to ensure product safety, this device may be operated only with original Dentsply Sirona accessories or third-party accessories expressly approved by Dentsply Sirona. In particular, only the power cable also supplied or the corresponding original spare part may be used with the unit. The user is responsible for any damage resulting from the use of non-approved accessories.

### 2.1.5 In case of damage

In case of noticeable malfunctions or damage, stop using the instrument immediately and notify your authorized dealer or the manufacturer.

## 2.2 Electromagnetic compatibility

Observance of the following information is necessary to ensure safe operation regarding EMC aspects.

Primeprint PPU complies with the requirements for electromagnetic compatibility (EMC) according to DIN EN 61326-1:2013

Primeprint PPU is hereinafter referred to as "UNIT".

### 2.2.1 Electromagnetic emission

The **UNIT** is intended for operation in the electromagnetic environment specified below.

The customer or user of the **UNIT** should make sure that it is used in such an environment.


Emission measurement	Conformity	Electromagnetic environment - guidelines
RF emissions according to <b>CISPR 11</b>	Group 1	The <b>UNIT</b> uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions according to <b>CISPR 11</b>	Class B	The <b>UNIT</b> is intended for use in all facilities, including residential areas and in any facilities connected directly to a public power supply providing electricity to buildings used for residential purposes.
Harmonics according to <b>IEC 61000-3-2</b>	Class A	
Voltage fluctuations / flicker according to <b>IEC 61000-3-3</b>	coincides	

## 2.2.2 Immunity to interference

The **UNIT** is intended for operation in the electromagnetic environment specified below.

The customer or user of the **UNIT** should make sure that it is used in such an environment.

Interference immunity tests	DIN EN 61326-1 Test level	Compliance level	Electromagnetic environment – guidelines
Electrostatic discharge (ESD) according to <b>IEC 61000-4-2</b>	± 6 kV contact ± 8 kV air	± 6 kV contact ± 8 kV air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst according to <b>IEC 61000-4-4</b>	± 1 kV for input and output lines ± 2 kV for power supply lines	± 1 kV for input and output lines ± 2 kV for power supply lines	The quality of the line power supply should be that of a typical commercial or hospital environment.
Surge voltages according to <b>IEC 61000-4-5</b>	± 1 kV differential mode voltage ± 2 kV common mode voltage	± 1 kV differential mode voltage ± 2 kV common mode voltage	The quality of the line power supply should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and variations of the power supply according to <b>IEC 61000-4-11</b>	<5% $U_T$ for ½ period (>95% dip of $U_T$ ) 40% $U_T$ for 5 periods (60% dip of $U_T$ ) 70% $U_T$ for 25 periods (30% dip of $U_T$ ) <5% $U_T$ for 5sec. (>95% dip of $U_T$ )	<5% $U_T$ for ½ period (>95% dip of $U_T$ ) 40% $U_T$ for 5 periods (60% dip of $U_T$ ) 70% $U_T$ for 25 periods (30% dip of $U_T$ ) <5% $U_T$ for 5sec. (>95% dip of $U_T$ )	The quality of the line power supply should be that of a typical commercial or hospital environment. Continued operation of the <b>UNIT</b> is possible following interruptions of the power supply, since the <b>UNIT</b> is powered by an uninterruptible power supply backed up by a storage battery.
Magnetic field of power frequencies (50/60 Hz) according to <b>IEC 61000-4-8</b>	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Note: $U_T$ is the AC supply voltage prior to application of the test level.			
			Portable and mobile radio equipment must not be used within the recommended working clearance from the <b>UNIT</b> and its cables, which is calculated based on the equation suitable for the relevant transmission frequency. Recommended working clearance:

Interference immunity tests	DIN EN 61326-1 Test level	Compliance level	Electromagnetic environment – guidelines
Conducted RF interference <b>IEC 61000-4-6</b>	3 V <sub>eff</sub> 150 kHz to 80 MHz	3 V <sub>eff</sub>	$d = [1.2] \sqrt{P}$
Radiated RF interference <b>IEC 61000-4-3</b>	3 V/m 80 MHz to 800 MHz 3 V/m 800 MHz to 2.5 GHz	3 V/m  3 V/m	$d = [1.2] \sqrt{P}$ at 80 MHz to 800 MHz $d = [2.3] \sqrt{P}$ at 800 MHz to 2.5 MHz where $P$ is the nominal transmitter output in watts (W) specified by the transmitter manufacturer and $d$ is the recommended working clearance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey <sup>1</sup> should be less than the compliance level <sup>2</sup> in each frequency range. Interference is possible in the vicinity of equipment bearing the following graphic symbol. 

**Remark 1**

The higher frequency range applies at 80 MHz and 800 MHz.

**Remark 2**

These guidelines may not be applicable in all cases. The propagation of electromagnetic waves is influenced by their absorption and reflection by buildings, objects and persons.

1. Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM/FM radio and TV broadcasts, cannot be predicted theoretically with accuracy. An investigation of the location is recommended to determine the electromagnetic environment resulting from stationary RF transmitters. If the measured field strength in the location in which the **UNIT** is used exceeds the applicable RF compliance level specified above, the **UNIT** should be observed to verify normal operation. If unusual performance characteristics are observed, it may be necessary to take additional measures such as reorientation or repositioning of the **UNIT**.
2. Over the frequency range 150kHz to 80 MHz, field strengths should be less than 3 V/m.

### 2.2.3 Working clearances

#### Recommended working clearances between portable and mobile RF communication devices and the UNIT

The **UNIT** is intended for operation in an electromagnetic environment, where radiated RF interference is checked. The customer or the user of the **UNIT** can help prevent electromagnetic interference by duly observing the minimum distances between portable and/or mobile RF communication devices (transmitters) and the **UNIT**. These values may vary according to the output power of the relevant communication device as specified below.

Rated maximum output power of transmitter [W]	Working clearance according to transmission frequency [m]		
	150 kHz to 80 MHz	80 MHz to 800 MHz	800 MHz to 2.5 GHz
	$d = [1,2] \sqrt{P}$	$d = [1,2] \sqrt{P}$	$d = [2,3] \sqrt{P}$
0,01	0,12	0,12	0,23
0,1	0,38	0,38	0,73
1	1,2	1,2	2,3
10	3,8	3,8	7,3
100	12	12	23

For transmitters whose maximum nominal output is not specified in the above table, the recommended working clearance  $d$  in meters (m) can be determined using the equation in the corresponding column, where  $P$  is the maximum nominal output of the transmitter in watts (W) specified by the transmitter manufacturer.

#### Remark 1

An additional factor of 10/3 is applied when calculating the recommended working clearance between transmitters in the 80 MHz to 2.3 GHz frequency range in order to reduce the probability that a mobile/portable communication device unintentionally brought into the patient area could lead to interference.

#### Remark 2

These guidelines may not be applicable in all cases. The propagation of electromagnetic waves is influenced by their absorption and reflection by buildings, objects and persons.

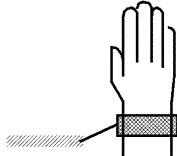
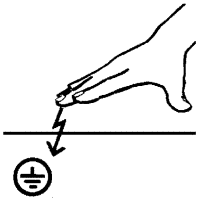


## 2.3 Electrostatic charge

### 2.3.1 ESD protective measures

**ESD** ESD stands for **E**lectro**S**tatic **D**ischarge.

#### ESD protective measures



ESD protective measures include:

- Procedures for preventing electrostatic charge build-up (e.g. air conditioning, air moistening, conductive floor coverings and non-synthetic clothing)
- Discharging the electrostatic charges of your own body on the frame of the UNIT, the protective ground wire or large metallic objects
- Connecting yourself to ground using a wrist band.

#### Training

We therefore recommend that all persons working with this system be instructed on the significance of this warning label. Furthermore, they also should receive training in the physics of electrostatic discharges which can occur in the practice and the destruction of electronic components which may result if such components are touched by electrostatically charged USERS.

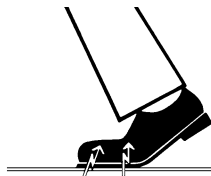
The content of this training is explained in the Chapter "About the physics of electrostatic charges" [→ 17].

### 2.3.2 About the physics of electrostatic charges

#### What is an electrostatic charge?

An electrostatic charge is a voltage field on and in an object (e.g. a human body) which is protected against conductance to ground potential by a nonconductive layer (e.g. a shoe sole).

#### Formation of an electrostatic charge



Electrostatic charges generally build up whenever two bodies are rubbed against each other, e.g. when walking (shoe soles against the floor) or driving a vehicle (tires against the street pavement).

#### Amount of charge

The amount of charge depends on several factors:

Thus the charge is higher in an environment with low air humidity than in one with high air humidity; it is also higher with synthetic materials than with natural materials (clothing, floor coverings).

Electrostatic discharge must be preceded by electrostatic charging.

The following rule of thumb can be applied to assess the transient voltages resulting from an electrostatic discharge.

An electrostatic discharge is:

- perceptible at 3,000 V or higher
- audible at 5,000 V or higher (cracking, crackling)
- visible at 10,000 V or higher (arc-over)

The transient currents resulting from these discharges have a magnitude of 10 amperes. They are not hazardous for humans because they last for only several nanoseconds.

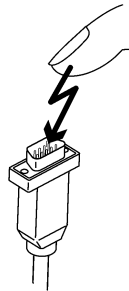
### Background

Integrated circuits (logical circuits and microprocessors) are used to implement a wide variety of functions in dental/X-ray/CAD/CAM systems.

The circuits must be miniaturized to a very high degree in order to include as many functions as possible on these chips. This leads to structure thicknesses as low as a few ten thousandths of a millimeter.

It is obvious that integrated circuits which are connected to plugs leading outside of the unit via cables are sensitive to electrostatic discharge.

Even voltages which are imperceptible to the user can cause breakdown of the structures, thus leading to a discharge current which melts the chip in the affected areas. Damage to individual integrated circuits may cause malfunction or failure of the system.



To prevent this from happening, the ESD warning label next to the plug warns of this hazard. ESD stands for **E**lectro**S**tatic **D**ischarge.

Connector pins or sockets bearing ESD warning labels must not be touched or interconnected without ESD protective measures.

## 2.4 Connecting the unit

Perform connection by following the directions given in the present operating instructions.

## 2.5 Connection of external equipment

If any devices not approved by Dentsply Sirona are connected, they must comply with the applicable standards (see "Standards/ approvals/ certifications [→ 21]").

## 2.6 Ventilation slots

Under no circumstances may the ventilation slots on the rear of the unit be covered, since otherwise the air circulation will be obstructed. This can cause the unit to overheat.

**Do not spray into the ventilation slots**



Do not spray liquids such as disinfectants into the ventilation slots. This may lead to malfunctions. Use wipe disinfection only in the vicinity of the ventilation slots.

## 2.7 Product-specific safety instructions

### CAUTION

#### Status LED illuminated in red

In the event of any faults, the status bar lights up red.

- Switch off the unit at the main switch before reaching into the processing area. You can switch on the unit again after remedying the fault.



### CAUTION

#### Risk of injury and damage to the unit

If too great a load is placed on the open door, the unit may tip over.

- Make sure that no one leans or rests on the open door.

### CAUTION

#### Do not use the component

In the rare case that components detach from the build platform during the washing process, the wash tank must be emptied. Since impurities in the isopropanol with exposed solid particles cannot be excluded, the contents must not be fed back again. In this case the isopropanol must be disposed of before the due date.

Because it cannot be excluded that the printed object has not been washed properly, this component must not be used.

### CAUTION

#### Do not use faulty printed objects

Faulty printed objects must not be used.

### NOTE

#### Check collection tray regularly and empty it after any leakage of the wash tank

Should a wash tank leak and its contents run out, there is a collection tray located under the guide rails of the Primeprint PPU that can hold the entire contents (2.5 liters).

- Check the collection tray regularly.
- If any contents of the wash tank have run out, remove, empty and clean the collection tray.
- Re-insert the collection tray after cleaning.

### WARNING

#### Risk of injury for those diagnosed with epilepsy

In the light curing chamber, flash frequencies are used to post-expose 3D-printed objects, which can be critical for people diagnosed with epilepsy. The unit is equipped with a corresponding screen, but it cannot be ruled out that the flash of light will be visible.

- Persons diagnosed with epilepsy must not be in the vicinity of the unit during post-exposure.

## 2.8 Material-specific safety instructions

### CAUTION

#### Handling of isopropanol

For general handling of isopropanol, printed materials, observe the safety data sheet of the manufacturer. Isopropanol must be handled properly and in compliance with all manufacturer's specifications and local legal requirements.

Independent of the specific requirements in the safety data sheet for isopropanol, we recommend wearing protective goggles, protective clothing and gloves during maintenance and cleaning.

The unit must be installed in a well-ventilated location.

## 3 General information on the device

### 3.1 Standards/ approvals/ certifications

#### CE mark



This product bears the CE mark in accordance with the provisions of Council Directives 2014/53/EU (RED), 2006/42/EC (Machinery Directive), 2014/30/EC (EMC Directive) and 2011/65/EU (RoHS) including 2015/863/EC as Annex II. As such, the following standards apply: ETSI EN 301 489-3 V2.1.1 (2017-03), DIN EN 61010-1:2020-03, DIN EN ISO 14971:2020-07 and DIN EN 61326-1:2013-07.

#### CAUTION

##### CE mark for connected products

Further products which are connected to this unit must also bear the CE mark. These products must be tested according to the applicable standards.

Examples of CE mark for connected products:

- EN 60601
- EN 61010-1
- EN 60950
- EN 62368-1
- UL 60950
- UL 62368-1

#### RoHS compliance



This symbol indicates that this product does not contain any toxic or hazardous substances or components above the maximum concentration value set out in the Chinese standard SJ / T 11364-2014, and can be recycled following disposal and should not be carelessly discarded.

### **Compliance statement**

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

### **IC declaration (For Canada only)**

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

## 3.2 Intended use

The Dentsply Sirona 3D printer is designed to produce three-dimensional dental applications from printable viscous materials. It hereby represents a part of an overall system of Computer Aided Imaging (data acquisition), Computer Aided Design (modelling of the application) and Computer Aided Manufacturing (production).

The product only covers the initial manufacturing process. For this purpose, a light-curing process is used to produce three-dimensional objects layer-by-layer in a single operation using a projection unit and printable viscous materials from specific material cartridges.

The subsequent washing and post-exposure treatment after the printing process is carried out in the associated post-processing unit of Primeprint PPU described here.

The data preparation (alignment, positioning, slicing, etc.) is part of an additional CAM software and, like the material used (printable viscous material), is not part of the product.

### CAUTION

#### Follow the instructions

If the instructions for operating the unit described in this document are not observed, the intended protection of the user may be impaired.

### CAUTION

Federal Law (USA) restricts the sale of this device to or on the order of a physician, dentist, or licensed practitioner.

### 3D printing post-processing

### CAUTION

The Primeprint 3D printer processes light-curing plastics. These are not finally polymerized before and after the processing process and require further post-processing. The materials can lead to injuries if they are not fully cured. Observe the safety data sheets of the materials used and use the corresponding and named accessories (Primeprint PPU) for the post-processing of the printed results.

For cleaning the printed results, observe the safety data sheets of the materials / isopropanol used. These can be obtained from the respective material manufacturer.

The post-processing of all materials validated in the Dentsply Sirona Primeprint 3D printer is performed with the Primeprint PPU of Dentsply Sirona, REF 6745561 in a validated post-processing process.

### NOTE

Observe local regulations for the disposal of all operating materials such as cartridges, gloves, and cleaning supplies associated with use of the Primeprint 3D printer.

### NOTE

Observe the local legal requirements for operating the 3D printer.



### 3.3 Scope of supply

- Primeprint PPU
- Wash tanks, 2x
- Individual illumination support
- Primeprint PPU activated carbon filter
- Primeprint PPU ozone filter
- Filter carrier, ozone filter
- Side cutting pliers
- Spatula
- Platform holder
- Hose set, nitrogen connection
- Crossed LAN cable
- Technical Documents
- Power cable

### 3.4 Technical description (component and interfaces)

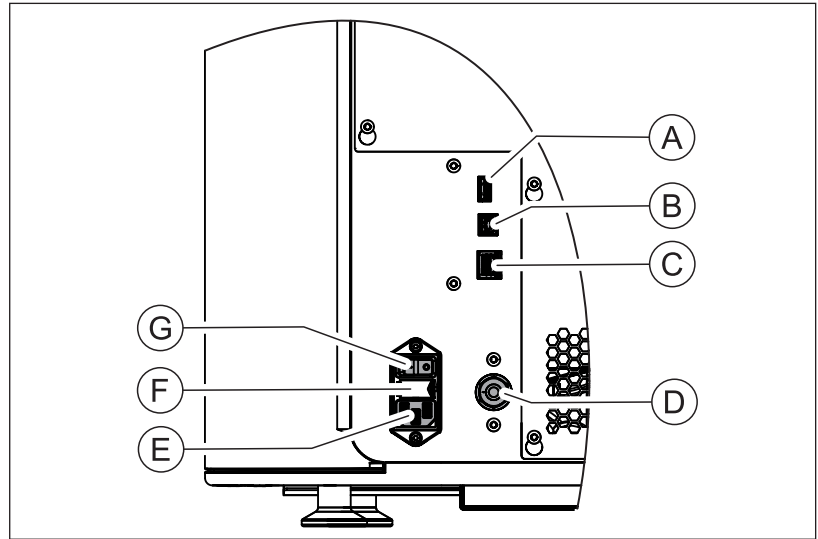
#### 3.4.1 Major components

##### 3.4.1.1 Front view



A	Door
B	Display
C	ON/OFF button

### 3.4.1.2 Connections



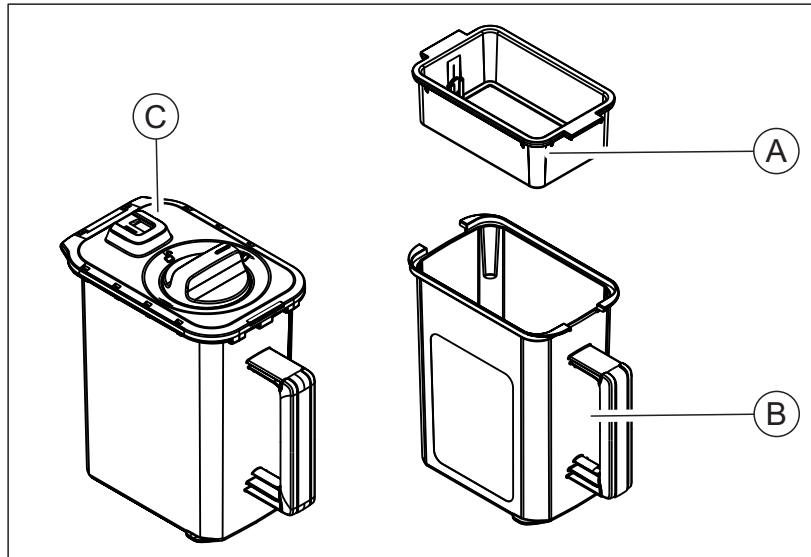
A	USB 2.0/3.0 (Data exchange)	E	Supply connection 100V ... 240V AC
B	USB 5V OUT (Unit control)	F	Fuses F1/F2 T4.0A H250V
C	"Ethernet (RJ45)" connec- tion for LAN	G	Device main switch ON/OFF
D	Nitrogen connection N2 (4 - 8 bar)		

### 3.4.1.3 Primeprint box

#### NOTE

##### Replace damaged transport container / wash tank

Damaged (broken, cracked, etc.) Transport containers / wash tanks must not be used any longer and must be replaced with a corresponding spare part (for REF see below).



A + B	Primeprint box (REF 6744895)
A	Build platform (REF 6757483)
B	Transport container (REF 6744887)
C	Wash tank (REF 6745546)

### 3.4.1.4 Wash tanks



### 3.4.1.5 Individual exposure carrier

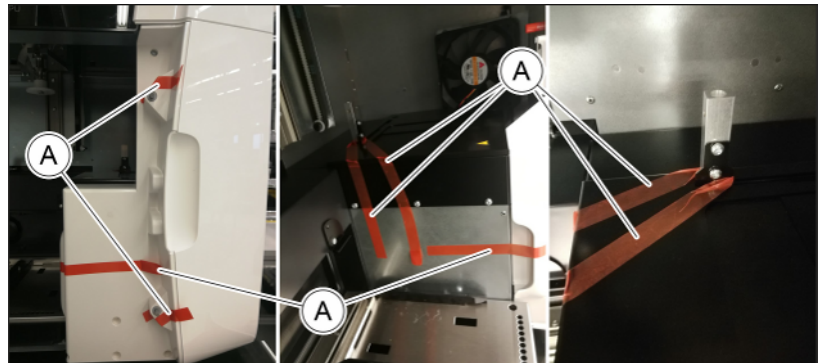


The individual exposure carrier consists of an exposure carrier (build platform with mesh basket) and a transport container. The individual exposure carrier can be used to re-expose misprints in order to generate generic waste from them. It can also be used for targeted post exposure, such as:

- for bonding of drill sleeves of CEREC guides
- for bonding of teeth onto the denture base

### 3.4.1.6 Transport lock

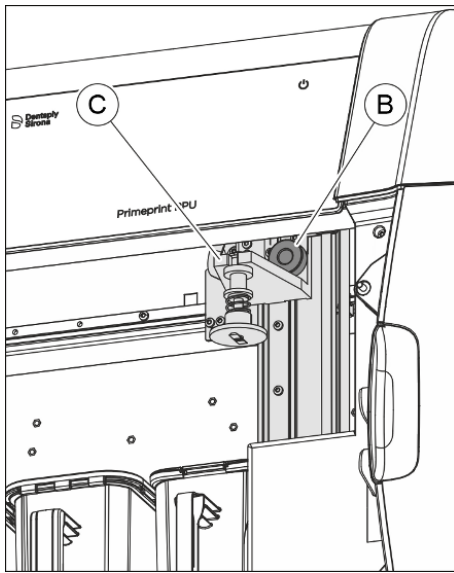
Prior to initial startup



#### NOTE

##### Remove transport lock

Prior to initial startup, remove the adhesive tape from the positions shown.



#### NOTE

##### **Remove transport lock**

Prior to initial startup, remove the transport lock (B) from the X-Z kinematics (C).

## 3.5 Technical data

Type designation	Primeprint PPU
Rated line voltage	100 V AC to 240 V AC
Rated power frequency	50/60 Hz
Nominal current	4.2 – 2.2A
Permissible line voltage fluctuations	±10% of nominal voltage
Type of protection against electric shock	Class I unit
Degree of protection against ingress of water	Usual unit (without protection against ingress of water), IP 20
Overvoltage category	II
Ambient conditions	For indoor use Pollution degree 2 Air pressure: 700 hPa – 1060 hPa Operating height: ≤3000 m above sea level
Temperature range	+15 °C to +35 °C (+59 °F - 95 °F)
Humidity range	80% rel. up to 31 °C (88 °F) decreasing to 50% rel. up to 40 °C (104 °F)
Operating mode	Continuous operation
Dimensions W x H x D	
in mm	730 x 670 x 515
in inches	28.74 x 26.37 x 20.27
Weight, approx.	50 kg (110.23 lb)

## 4 Transportation and installation

### 4.1 unpacking

All products from Dentsply Sirona are carefully checked prior to shipment. Please perform an incoming inspection immediately after delivery.

1. Check the delivery note to ensure that the consignment is complete.

**Tilt and shock indicators** are attached to the unit packaging.

These indicators are used to detect whether the unit has been transported improperly or had an impact during transport.

- Signal colors of the tilt indicators:
    - Red indicator: Improper transport
  - Signal colors of the shock indicators:
    - White indicator: No shock
    - Red indicator: Shock
- Check the SHOCKWATCH und TILTWATCH transport indicators on the outside of the package. If one of both of the indicators has been tripped, check the packaging and the unit for visible damage.

#### NOTE

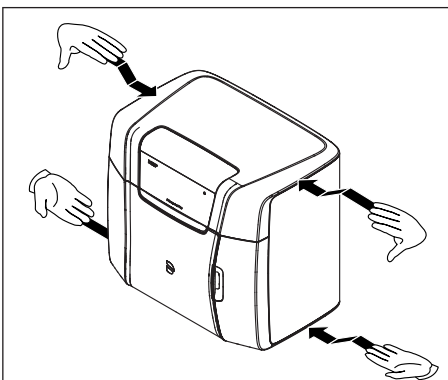
##### Damage during transport

If the product was damaged during transport, please contact your carrying agent.

If a return is necessary, use the original packaging for the shipment.

If the original packaging is no longer available, you can order a new return packaging (REF 6798727).

#### Transportation without packaging



#### ⚠ CAUTION

##### Damage to the unit or risk of injury during transport without packaging

There is a risk of dropping the unit if it is handled only by its plastic housing.

Note the weight of 50 kg! The unit must always be removed from the packaging and installed by two persons.

- The unit must always be carried by two persons.
- Per person:
  - Each holds the unit tightly between the unit feet with one hand and balances the top of the unit with the other hand.

### 4.2 Disposal of packaging materials

The packaging must be disposed of in compliance with the relevant national regulations. Observe the regulations applicable in your country.



## 4.3 Installation requirements

### 4.3.1 Requirements for the place of installation

Ensure that the unit is installed on an even, horizontal surface of approx. 730 mm x 570 mm (W x D). The load carrying capacity should be at least 60 kg.

If you place two or more units side by side, you must also take into account the weight of the other units (e.g. Unit 1  $\triangleq$  50kg + Unit 2  $\triangleq$  60kg = 110kg total weight).

The height of the unit is approximately 670 mm.

Install the unit so that access to the power plug is guaranteed at all times. Make sure that the ventilation slots on the rear of the unit remain unobstructed.

The distance between the rear of the unit and the wall must be at least 8 cm.

Note the weight of 50 kg!

The unit must not be stacked. The unit covers are not designed for high loads.

Do not install the unit at sites with a high level of humidity or dust!

The unit must be installed in a well-ventilated location.

### 4.3.2 Storage requirements

To operate the unit, at least one Primeprint box and two wash tanks filled with 99% isopropanol are required. Please observe the following instructions regarding storage.



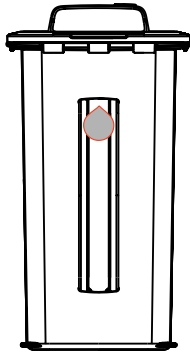
For storage purposes, the wash tanks must be locked (rotating wheel cover).

Do not use defective wash tanks.

For storage, observe the requirements of the material manufacturer.



Each material cartridge is supplied with two drop-shaped stickers that are color-coded by material.



If possible, place them on the handle of the wash tanks so that you can clearly associate them with the corresponding material later.

Always store the wash tanks upright and seal them with the sealing mechanism provided for that purpose to prevent the wash liquid from leaking or evaporating.

## 4.4 Connection of the nitrogen supply

### DANGER

#### Danger posed by discharging gas!

Possible danger of suffocation.

- > When carrying out any work on the Primeprint PPU unit, the nitrogen supply and voltage supply must be interrupted and the gas cylinder must be closed.
- > Comply with national safety regulations when handling nitrogen and pressurized gas cylinders.

Post-exposure of photopolymerized components requires an oxygen-reduced atmosphere to prevent oxygen inhibition. This atmosphere is achieved using nitrogen. This ensures complete tack-free curing of the surfaces and thus an effective reduction of the residual monomer content and biocompatibility.

Nitrogen is a technical gas in a pressurized gas cylinder.

The purity of the nitrogen must be 2.8 (green) = 99.8%.

- Provide your cylinder with a manometer as well as a pressure regulator.

The nitrogen flow is preset at the factory and is approx. 6 l/minute at 4-bar connection pressure.

1. Connect the connecting hose included in the scope of delivery to the nitrogen connection of the Primeprint PPU unit and to the nitrogen supply (gas cylinder).
2. Set the output pressure of the gas cylinder to 4 to 8 bar (optimum pressure).

### IMPORTANT

If the output pressure of the gas cylinder is set lower than 4 bar, too little nitrogen will get into the exposure chamber and the exposure will fail!

3. Check the gas pipes and connected couplings for leaks and secure fitting.

### IMPORTANT

The volume of a nitrogen cylinder is sufficient to flood an entire room in the event of a malfunction. Ensure adequate ventilation of the room.

4. Protect ducts and shafts against the ingress of gas.

## 4.5 Connecting the unit to the power supply and existing network

### Connecting the unit to the power supply

Only use the power cord supplied in the package for connecting to the mains. The unit must be connected directly to a fixed socket and must not be bridged via an extension cable.

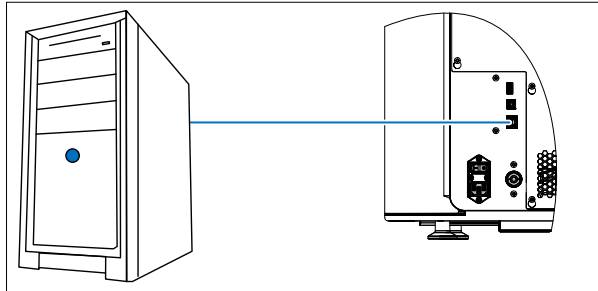
- > Connect the unit to the power supply.

### Connecting the unit to the network

- Integrate your unit into your existing network via the LAN "Ethernet" connection. Use the network cable supplied for this and the LAN switch delivered as an option if applicable.

## 4.6 Connecting to the PC via LAN

An Ethernet port is located on the rear of the unit, which can be used to connect the PC to the unit. Use a network cable to do this (LAN connection).



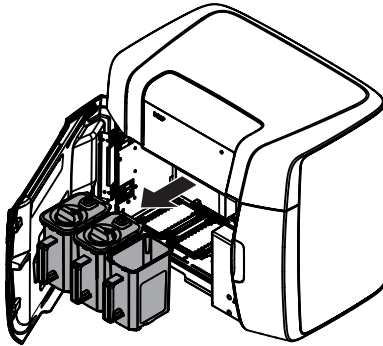
*Using a network cable*

Connect the unit with the network card of your PC using the provided network cable.

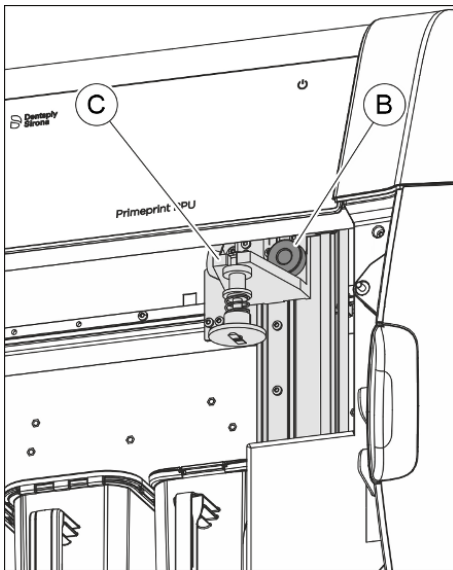
### **IMPORTANT**

If you wish to integrate the unit into an existing network, contact your responsible IT technician and follow instructions for checking the installation.

## 4.7 Repacking



1. Use the return packaging for repacking (REF 6798727).
2. Remove the wash tanks and the Primeprint box.
3. Move to the transport position via the service software, if not already moved to.



### NOTE

#### Attach transport lock

Before transporting the unit, attach the transport lock (B) to the X-Z kinematics (C).

4. Insert the transport locks supplied with the return packaging **and switch off the Primeprint PPU.**
5. Unplug the power cable and the LAN cable from the rear of the unit.
6. Pack the Primeprint PPU according to the supplied instructions.

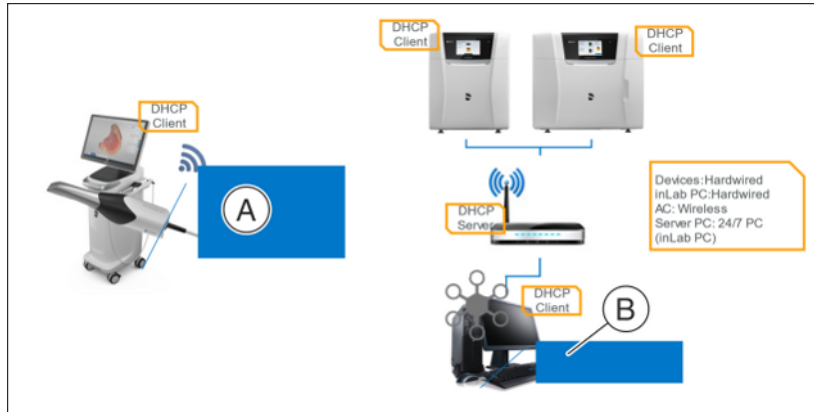
## 4.8 Storage

Store the unit in a closed and dry room at a temperature of -10°C to 50°C for a maximum period of 12 months.

## 5 Commissioning

### 5.1 Connecting to the PC via WLAN (option)

#### Making the connection



Connect access point / DHCP server

A	Acquisition unit, do <b>not</b> install CAM service!	B	inLab PC, constant connection to the In- ternet.
---	---------------------------------------------------------	---	--------------------------------------------------------

#### NOTE

##### Stability not guaranteed

If CAM service is installed on the acquisition unit, stability is not guaranteed.

- Do **not** install CAM service on the acquisition unit.
- Install CAM Service on the inLab PC, which must have a permanent connection to the Internet.

- Connect the devices as shown.

### Positioning the access point

1. As a test, place the access point near the production unit at head level or higher.
2. Perform a communication test.
3. After you have found the optimum setting, take the acquisition unit and place it in the position in which it will be operated that is farthest away from the access point.
4. From this position, repeat the communication test you conducted earlier. If the results are satisfactory, leave the access point permanently in this position.
5. If the connection quality is not adequate, WLAN communication cannot be easily achieved under the local conditions. In this case, ask your network administrator for assistance.

#### NOTE

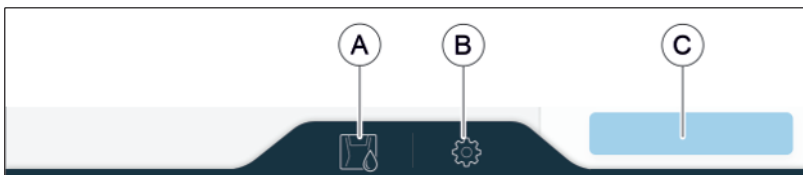
##### LAN connection

Operation via a LAN cable connection is possible at any time.

## 5.2 Putting the unit into operation

### 5.2.1 Functional elements

#### 5.2.1.1 Touch display



A	Routine actions
B	Settings
C	Start job

This document describes how to operate the unit by executing and confirming commands via the touch display. All inputs that are required on the unit can be made here.

#### 5.2.1.2 Color status of the light strip

The LED light strip can display various statuses of the unit.

LED light strip	Operating status
White	Unit ready for operation. Door closed.
Yellow, Continuous illumination	Unit ready for operation. Door open.
Green, Slowly flashing	Unit ready for operation. All elements available for print job.
Blue, x% progress, Rest is white	Processing is in progress.
Green, 100% lit	Processing concluded in a controlled manner.
Yellow Flashing at x%	Process interrupted with Stop.
Red, Flashing at x%	Process interrupted because of error.
Yellow, Rapidly flashing	Unit is switching off.
Red, Continuous illumination	Internal error. Restart required.
Color of your choice, except blue, red, green, yellow, white Pulsating	Unit in Idle mode.

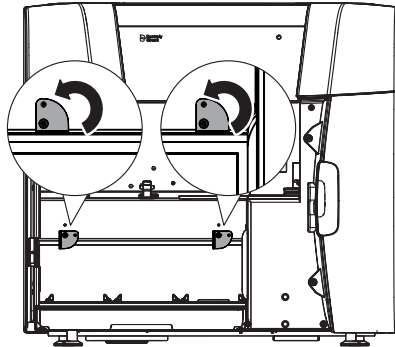


## 5.2.2 Inserting activated carbon filter and ozone filter

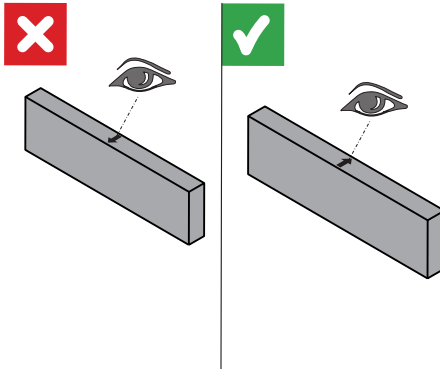
### Inserting the activated carbon filter

#### CAUTION

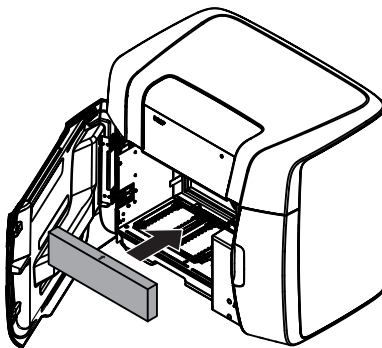
Use of the device is only permitted when the activated carbon filter is inserted.



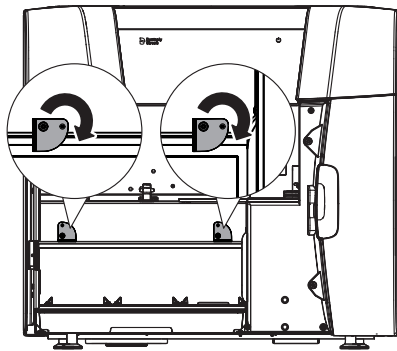
1. Rotate the two knobs 90° counterclockwise.



2. Insert a new activated carbon filter (REF 6745603). Unpack the new filter from the plastic packaging and pay attention to the direction of the arrow on the filter.

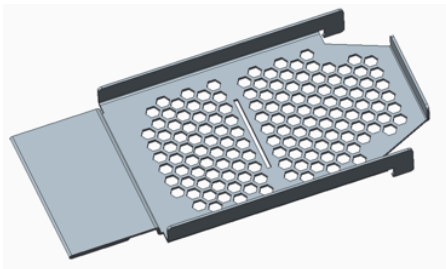


3. Insert the new filter, paying attention to the direction.

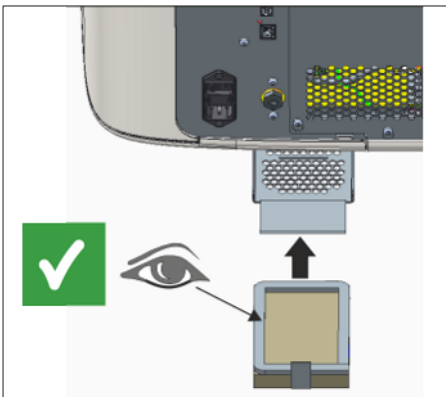


4. Insert the new filter at the bottom behind the sheet metal, then push it backward and fix it with the two knobs. To do so, rotate the two knobs 90° clockwise.

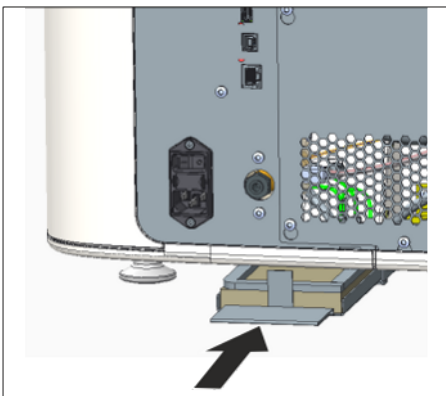
#### Insert the ozone filter



1. Remove the filter holder for the ozone filter from the carton with the accessories and insert it.



2. Insert a new ozone filter (REF 6752138). Unpack the new ozone filter from the plastic packaging and place it in the perforated plate with the foam edge facing upward.



3. Push in the drawer with the new ozone filter as far as it will go.

### 5.2.3 Preparing the wash tanks

#### NOTE

##### Do not use damaged wash tanks

Damaged wash tanks must not be used. In case of damage, empty the tank and replace it with a new one.

If a wash tank is dropped, check it thoroughly for leaks/damage and, if necessary, stop using it.



1. Check that the magnetic stirrer, float and screen are inserted properly. The magnetic stirrer and float (level measurement) must rotate and move up and down freely. The screen must be inserted.
2. Fill the wash tanks with the intended washing agent, for example, 99% isopropanol. Always read the corresponding safety data sheet or material data sheet for use of the washing agent.
3. Fill the wash tanks so that the level of isopropanol is between the min. and max. markings in the wash tank.
4. Insert the wash tanks into the two left slots of the Primeprint PPU and push them as far as they will go to the end position.
5. Mark the wash tanks with one of the color-coded drop-shaped stickers included with each cartridge to make it easier to later associate the wash tanks with the corresponding material.
6. The cover of the wash tank must be closed, but not locked (twist lock as shown).

**Tip:** The cover of the wash tank can be removed from the tank and reinstalled at an opening angle of approx. 120°. During assembly, make sure that both hinges are hooked in, otherwise a malfunction may occur.

**Tip:** It does not matter which of the two wash tanks is inserted into which slot.

#### IMPORTANT

##### Lost components

On very rare occasions, a part of the printed object may come loose from the platform. The wash tank has a metal grate that prevents such parts from reaching the magnetic stirrer. If you're missing a part, you can simply lift the grate from the wash tank and remove the lost component.

### 5.2.4 Transferring the Primeprint box



Before using the Primeprint PPU unit, a printed object is first printed on the Dentsply Sirona Primeprint 3D printer.

The component created in the printer is now attached to the build platform in the Primeprint box. After the successful printing, you can transfer this Primeprint box to the Primeprint PPU unit.

To do this, push the Primeprint box into the right-hand slot of the Primeprint PPU as far as it will go.

## 5.2.5 Switching the unit ON and OFF

### NOTE

#### Do not put the unit into operation at low temperatures!

If you move the unit to the operating site from a cold environment, condensation may form and result in a short circuit.

The unit contains grease depots for lubricating components that may cause error messages at low temperatures.

- ✓ Install the unit at room temperature.
- Wait until the unit has reached room temperature and is absolutely dry (for at least one hour).
- ↪ The unit is dry and can be put into operation.

### NOTE

#### Do not adjust the line voltage

The unit automatically adjusts to the line voltage.

#### Switching on the unit

- ✓ The unit is connected to the power supply.
- 1. The main switch on the left rear side of the unit is set to position I (ON).
- 2. Press the ON/OFF button on the front panel.
  - ↪ The unit switches on.
- 3. Select the unit language to be used.



#### Switching off the unit

### ⚠ CAUTION

#### Risk of fire/risk of injury

The device may only be switched off in a safe operating state. The wash tanks filled with isopropanol must be closed for this purpose.

- ✓ The unit has finished the machining operation.
- ✓ The wash tanks filled with isopropanol are closed.
- Briefly press the ON/OFF button on the front panel.
- ↪ When you let go of the button, the unit switches off.



## 5.2.6 Installing and configuring the unit

### 5.2.6.1 Installing the unit

You must connect the unit to the PC before putting it into operation. This is described in the section "Connecting the PC/interfaces".

#### IMPORTANT

The Primeprint PPU unit can be operated with both a static IP address as well as an automatically assigned IP address.

The Primeprint PPU unit is always configured for operation ex works with a static IP address. The standard IP address is as follows: 192.168.230.xy. The digits x and y are made up from the last two digits of the unit serial number. These can be found on the label on the rear of the device. If the serial number ends in "00" then the xy value is always "100".

The MAC address of the network card can be found in the configuration menu of the unit.

To change the IP configuration always establish a direct connection with static IP address to your PC's network card. The network address for the inLab 6 PC used is 192.168.230.101. The subnet mask is 255.255.255.0.

#### 5.2.6.1.1 Automatic unit search

- ✓ The unit is connected to the PC using a direct connection via Ethernet cable.
- ✓ The unit is switched on.
- 1. Start the "inLab CAM" software.
- 2. Click the "Machine and Instrument tray Management" button in the system menu.
- 3. Click on the "Scan for New Devices" button.
  - ↳ All units connected to the PC are recognized.
- 4. Enter a name for the new unit.



#### 5.2.6.1.2 Manual unit search

- ✓ The unit is connected to the PC using a direct connection via Ethernet cable.
- ✓ The unit is switched on.
- 1. Start the "inLab CAM" software.
- 2. Click the "Machine and Instrument tray Management" button in the system menu.
- 3. Click on the "Add Device (Manual)" button.
- 4. Select "Network".
- 5. Enter the network address.
- 6. Click on the "Ok" button.
  - ↳ The software attempts to contact the device.



If the connection fails, check the connection. If necessary, ask a qualified technician.

### 5.2.6.1.3 Updating devices

With the *"Refresh Devices"* button you can:

- display the status; e.g. check whether a unit has finished producing in the meantime, or
- check the current availability of a unit.

### 5.2.6.1.4 Remove the unit

If you no longer require a unit (e.g. a unit is replaced), you can remove it.

✓ The unit is not in operation.

1. Click the *"Machine and Instrument tray Management"* button in the system menu.

2. Click on the unit that you wish to uninstall.

3. Click on the *"Delete Device"* button.

👉 You will be asked if you would like to remove the unit.

4. Click on the *"YES"* button.

👉 The device is removed.



### 5.2.6.2 Configuring the device

In the *"Machine and Instrument tray Management"* software *"inLab CAM"* area you can make subsequent amendments to the various settings for your unit.

1. Click the *"Configuration"* button in the system menu.
2. Click on the *"Machine and Instrument tray Management"* button.
3. Click on the unit that you wish to configure.

#### 5.2.6.2.1 Primeprint PPU - Editing unit settings

Using the touch display, you can change or view the following settings subsequently via menu item *"Settings"*:

- Language setting
- Sound and light settings
- IP settings
  - Automatic IP setting
  - Manual IP settings
  - Display of the MAC address
- Configuring DS hub connections
- Firmware download

##### 5.2.6.2.1.1 Device settings

#### Manual IP settings

The IP address can be changed in order to integrate the unit into existing networks. To do this, proceed as follows:

1. Establish a direct connection to the inLab 6 PC (see Installing the unit).
2. If you want to change the static IP address, click *"Edit Device Settings"*.
3. Enter the network settings in accordance with your local network configuration.
4. Confirm the new network settings with *"Ok"* or press *"Cancel"* in order not to save the changed settings.
5. Disconnect the Ethernet connection to the PC and connect the unit to the network socket of your local network (see Connecting the PC/ interfaces).

#### Auto IP settings

There is an option to integrate the unit into an existing network with DHCP server in such a way that the IP address is received automatically from the DHCP server. To do this, proceed as follows:

1. Establish a direct connection to the inLab 6 PC (see Installing the unit).
2. If you want to change the IP address to automatic addressing, click *"Edit Device Settings"*.
3. Now click *"Auto IP settings"*.

#### IMPORTANT

Ensure that the network in which you are integrating the unit has an active DCHP server for the allocation of IP addresses.



4. Confirm the new network settings with *"Ok"* or press *"Cancel"* in order not to save the changed settings.
5. If you have changed the setting to *"Automatic"*, you must now disconnect the Ethernet connection to the PC and connect the unit to the network socket in your local network.
6. If you wish to change the settings back again, then change over to *"Manual IP settings"*.

#### **IMPORTANT**

If the unit is in *"Auto IP settings"* mode and does not detect any active DHCP server, the IP address is automatically reset to 192.168.230.1. With the help of a direct connection to a PC, the unit can be added and managed again using the *"Add Device (Manual)"* function.

#### **Firmware download**

Each CAD/CAM unit of the Dentsply Sirona requires a firmware version that is compatible with the respective version of the inLab CAM software.

You start the download of the appropriate firmware for your unit with this button.

#### **IMPORTANT**

If a unit does not have the correct firmware version, this is in fact detected by the software, yet it cannot be used for production. It is indicated as "invalid firmware" both in the device management and in the production phase.

## 6 Operation

### 6.1 Referencing run

#### NOTE

##### Observe the Operator's Manual

Please also observe the information in the Operator's Manual for inLab CAM SW software.

The referencing run is used for the function check of the sensors and the position check of movable parts in the build chamber. The referencing run takes place automatically via the firmware. A complete referencing run always takes place following switch-on of the unit immediately before starting the first print job. A shortened referencing run takes place before every new print job.

### 6.2 Post-processing

#### ⚠ CAUTION

##### Risk of injury when reaching into the build chamber

There is the risk of cut and crush injuries caused by sharp edges and movable parts.

> Be sure not to touch the sharp edges and movable parts.

#### NOTE

Make sure that you only process material whose expiration date has not passed.



You can transfer the printed component from the Primeprint 3D printer to the Primeprint PPU using the Primeprint box.

You can see the progress of the process at any time on the unit display.

After the start of the process, the Primeprint PPU automatically takes the build platform from the transport container with the integrated robot arm and transfers it to the wash tank 1 for pre-washing.

The software decides which of the wash tanks is wash tank 1 and which is wash tank 2. Wash tank 1 is always the one with less fresh isopropanol and is used for pre-washing. Wash tank 2 is always used for fine washing and always has the fresher content (tank with least contaminated isopropanol). If the wash tanks are too heavily contaminated, this is indicated on the unit and the tank must be refilled.

The build platform is then transferred to the second wash tank for fine washing, which usually contains the fresher isopropanol (with less residual resin).

After this second washing operation, the build platform from the wash tank is blown off for drying in the unit.

When the component is dry, the build platform moves into the exposure chamber.

After exposure, the build platform with the component is transferred back into the transport container.

The process is now finished, and the Primeprint box can be removed from the unit.

 **CAUTION**

**Danger of injury when removing the component**

There is a risk of cut injuries caused by sharp edges.

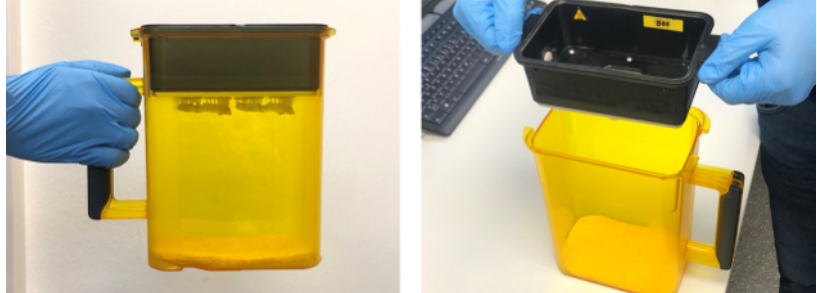
- > Be sure not to touch any sharp edges of the component.
- > In order to avoid injury, wear gloves when removing the component from the build platform.

Now it is possible to scrape off the completely dry and fully exposed component from the build platform using the supplied spatula.

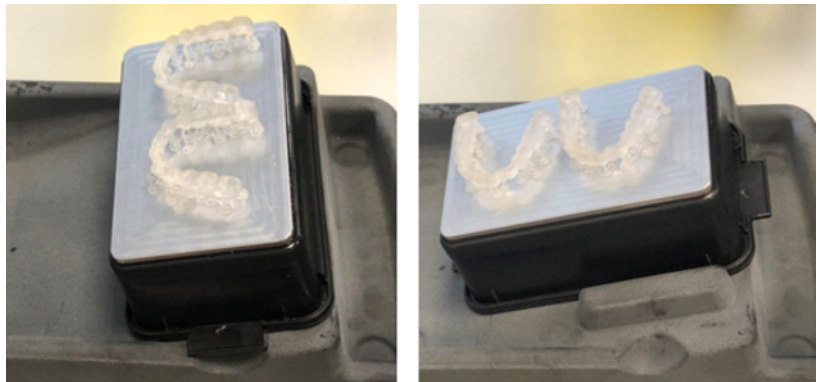
The support structures can be cut off with the side cutting pliers and the component can then be trimmed.

## 6.3 Removing the printed object from the build platform

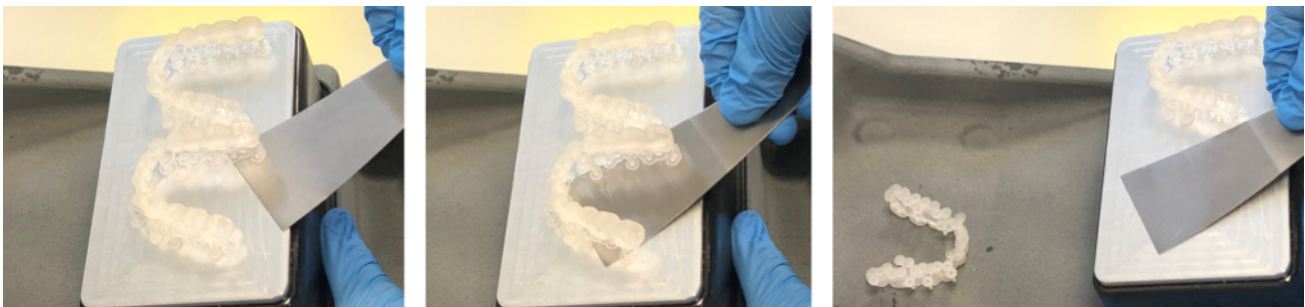
1. First, carefully lift the build platform out of the Primeprint box.



2. Now place the build platform on the removal fixture. The platform can be placed on the fixture in two orientations: lengthwise and crosswise. Choose the orientation that best allows you to get under the supports of the printed object to be removed with the supplied spatula.



3. Carefully place the spatula under the supports that are most easily accessible. Always move the spatula away from you and toward the collection tray of the removal fixture.



## 6.4 Display mirroring

The content of the unit display can also be displayed on the monitor of a connected computer.

As a precondition for this, the connected computer must be in the same network as the Primeprint PPU unit.

1. Open the installed Internet browser on the connected computer.
2. Enter the IP address of your Primeprint PPU unit and the characters : 50928 and confirm the entry (example: for Primeprint PPU with IP address 10.90.138.55, the entry would look like this:  
`http://10.90.138.55:50928/`).
3. The content of the device display is now displayed.

**Tip:** The operating elements can be operated via the connected computer's mouse, touchpad or touch display.

**Tip:** To find the IP address of your Primeprint PPU unit, go to Network settings under Settings.

## 7 Maintenance and cleaning

### NOTE

#### Observe country-specific Regulations!

Some countries have legal regulations which require regular safety inspections of electrical devices or systems by the operator.

### NOTE

#### Perform maintenance regularly!

Observe the regular maintenance intervals (see "Maintenance intervals").

### NOTE

#### Observe error messages

You must observe error messages shown on the display on in the software. If the error message does not disappear even after you have performed the prompted action, contact your service engineer.

### CAUTION

#### Observe the requirements regarding the environment and cleaning aids

When cleaning and disposing of operating materials, make sure that this always takes place in a well-ventilated room and that protective goggles and gloves are worn.

### CAUTION

#### Replace the activated carbon filter at regular intervals

The activated carbon filter must be replaced regularly.

- Replace the activated carbon filter when prompted to do so on the unit's display.

### IMPORTANT

#### Clean stains inside the unit

Stubborn resin residues and stains inside the unit can be removed with good results by rubbing them with a cloth or paper towel moistened with isopropanol.

### IMPORTANT

#### Remove loose parts

Loose parts, torn off print objects must always be removed from build chamber of the unit.

## 7.1 Care and cleaning agents

Clean dirt from the cover parts with commercially available mild cleaning agents or soap solution.

Promptly remove resin residues on the inside and outside with isopropanol.

## 7.2 Maintenance intervals

Interval	Scope of maintenance
Daily (recommended)	Wiping out the machining chamber at the end of the work day.
Weekly	-
Monthly	Check collection tray and clean if necessary.
Annually (recommended)	System maintenance by service technician using the Primeprint PPU maintenance kit (REF 6762939).

Further maintenance/replacements may be necessary over time and are indicated on the unit's display. This information should always be observed. For example, replacement of:

- Washing agent
- Light curing flash light module
- Activated carbon filter
- Ozone filter

Disposal of the replaced parts must be carried out in accordance with local/regional/national and international regulations.

## 7.3 Cleaning surfaces

### NOTE

Do not allow liquids to run into the ventilation slots!

### 7.3.1 Protection against medicaments

Due to their high concentrations and the substances they contain, many medicaments can dissolve, etch, bleach or discolor surfaces. Therefore, any substance that comes into contact with the unit should be immediately removed.

### NOTE

#### Damage to the surface

Clean the surface immediately with a moist cloth and a cleaning agent.

### 7.3.2 Removing dirt

Remove dirt and disinfectant residues regularly using mild, commercially available cleaning agents or soap solution.



## 7.4 Cleaning the build platform

### CAUTION

#### Risk of injury when reaching into the build chamber

There is the risk of cut and crush injuries caused by sharp edges and movable parts.

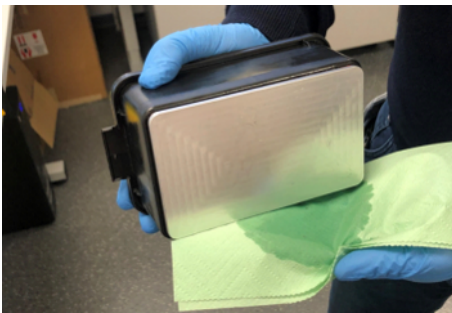
> Be sure not to touch the sharp edges and movable parts.



1. Remove all residues from the build platform using the spatula.



2. In addition, clean the build platform with a paper towel moistened with a little isopropanol.



3. First pull the paper towel over the edge and then, if necessary, over the entire surface of the build platform until there is no residual resin left.

### IMPORTANT

#### Never use damaged build platforms

Do not use damaged build platforms. Smaller scratches are not critical.

## 7.5 Replacing the sponge insert of the transport container



There is a sponge insert in the bottom of the transport container, which should be replaced approx. every 2 months if the transport container is used regularly.



1. **CAUTION! Avoid eye contact.** Always wear gloves when removing the sponge insert, as the sponge is soaked with uncured printing resin.
2. **CAUTION! Keep out of reach of children.** For curing purposes, it is best to place the sponge on a non-absorbent surface in fresh air in the sun. When the resin has cured in the sponge, the sponge can usually be disposed of as normal waste.
3. Clean the transport container by placing some isopropanol on a paper towel and wiping the bottom of the container until no more resin residues are visible.



4. Place a new sponge in the transport container. Replacement sponges are included with the Primeprint (transport container insert REF 6754241).

## 7.6 Cleaning wash tanks

If the cleaning agent is saturated (normally indicated by the unit) or you want to use the wash tanks to wash another material, the wash tanks must be cleaned.



1. To do this, pour half of the used cleaning agent into a sealable disposal container.



2. Lock the cover of the wash tank by positioning the rotary handle to the locked position.

3. Swish the remaining cleaning agent around in the wash tank.



4. Open the lock and pour the remaining cleaning agent into the disposal container.

5. In case of heavy deposits, we recommend adding approximately 1 cm fresh cleaning agent to the wash tank and repeating the procedure again before refilling.

## 7.7 Replacing the activated carbon filter

### CAUTION

Use of the device is only permitted when the activated carbon filter is inserted.

### CAUTION

#### Risk of injury on the fan wheel

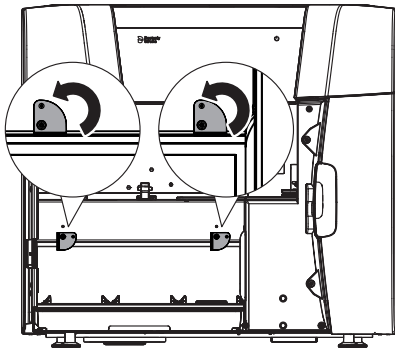
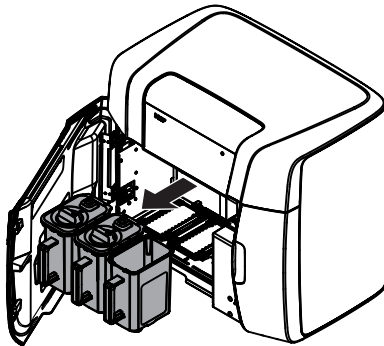
The rotating fan wheel of the fan can be touched with the fingers when the door is open.

- > Always unplug the power plug of the Primeprint PPU before changing the activated carbon filter.

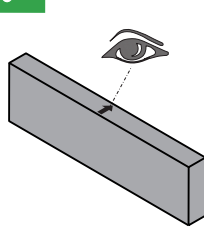
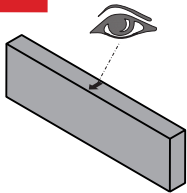
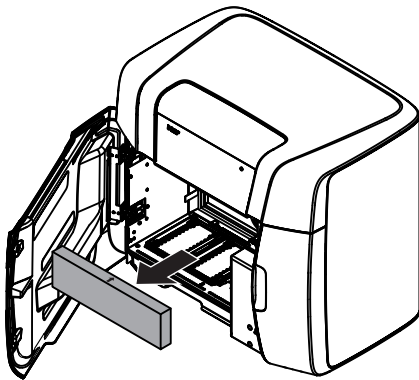
Always replace the activated carbon filter when the system prompts you to do so or when the odor nuisance increases noticeably.

The activated carbon filter (REF 6745603) is a wear part and should be replaced when a message is output by the unit or a strong odor is detected despite the door being closed.

1. The activated carbon filter of the Primeprint PPU is located inside behind the wash tanks, therefore first remove the wash tanks.



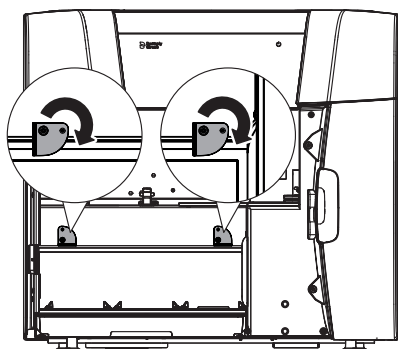
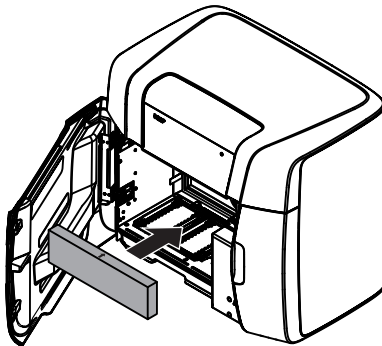
2. Rotate the two knobs 90° counterclockwise.



3. The filter has small tabs on the outside. Gently pull the filter forward using the tabs and remove the filter. The used full filter can usually be disposed of in normal household waste.

4. Now insert a new activated carbon filter (REF 6745603). Unpack the new filter from the plastic packaging and pay attention to the direction of the arrow on the filter.

5. Reinsert the new filter in the same place, paying attention to the direction.



6. Insert the new filter at the bottom behind the sheet metal, then push it backward and fix it with the two knobs. To do so, rotate the two knobs 90° clockwise.

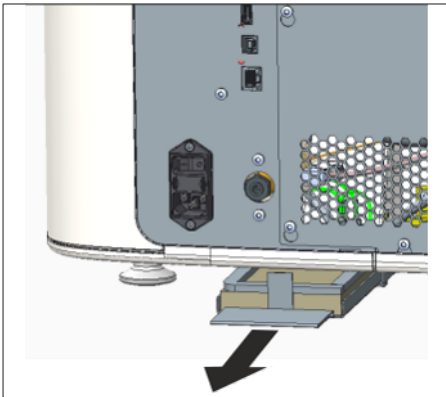
## 7.8 Replacing the ozone filter

The ozone filter (REF 6752138) is a wear part and should be replaced in the following cases:

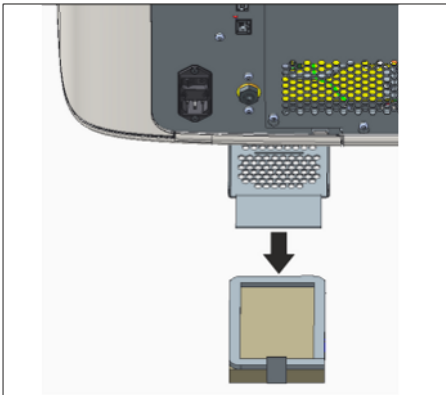
- When notified by the unit
- If typical ozone odor occurs during exposure

The ozone filter of the Primeprint PPU is located below the unit.

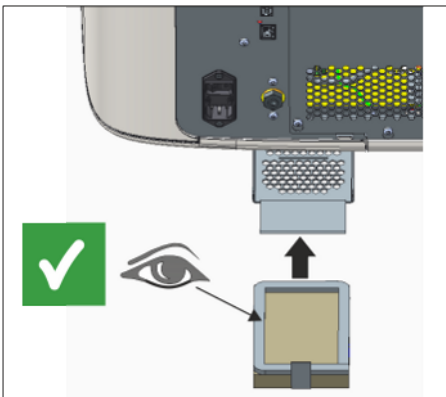
1. Pull out the drawer in which the ozone filter is located.

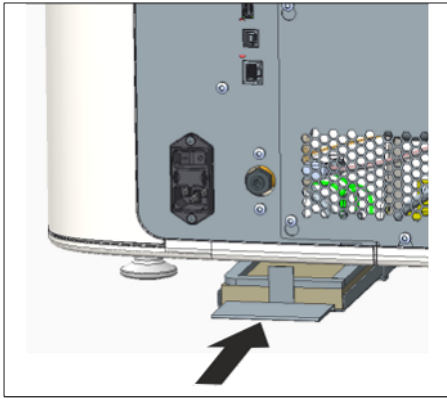


2. Remove the used ozone filter and dispose of it. The used full filter can usually be disposed of in normal household waste.



3. Insert a new ozone filter (REF 6752138). Unpack the new ozone filter from the plastic packaging and place it in the perforated plate with the foam edge facing upward.



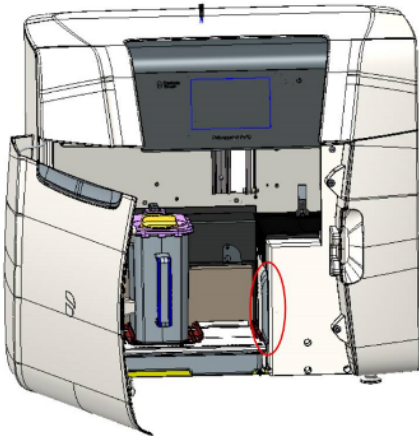


4. Push in the drawer with the new ozone filter as far as it will go.

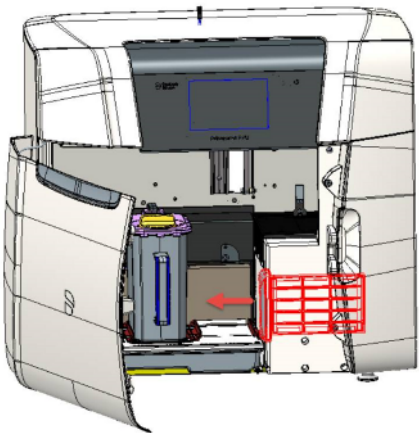
## 7.9 Replacing the air filter for the light curing chamber

Always replace the air filter for the light curing chamber when the system prompts you to do so. The air filter for the light curing chamber is located behind the door behind the right panel.

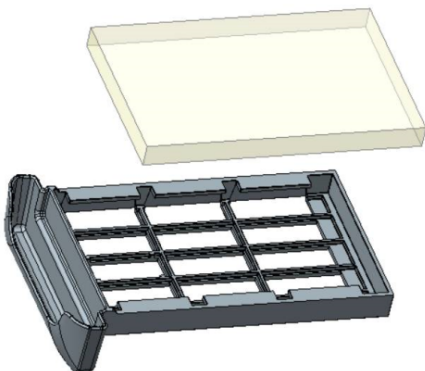
1. Open the door and remove the Primeprint box and the wash tank on the right.



2. Pull the filter holder out of its guide to the left.



3. Remove the used filter from the filter holder and replace it with a new filter.
4. Push the filter holder back into the guide to the right as far as it will go.
5. Reinsert the Primeprint box and the wash tank on the right and close the door.



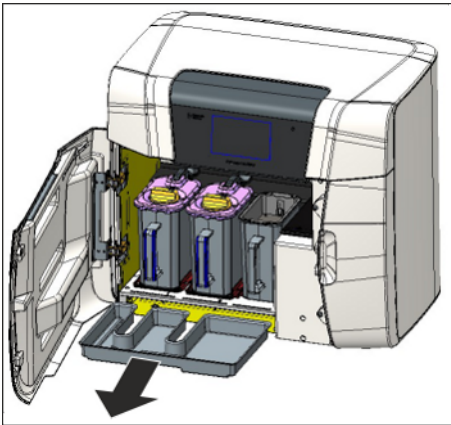


## 7.10 Cleaning the collection tray

The collection tray should be checked monthly and cleaned if necessary.

The collection tray has the volume of a complete washing tank, but smaller quantities are also naturally collected by the tray.

Always use nitrile gloves when cleaning.



1. Remove the tray completely.
2. Wipe out the tray with paper towels or for larger quantities, collect the detergent from the tray in your appropriate collection container for the disposal.
3. Wipe off stubborn residues with a little isopropanol and paper towels.
4. Then rub the tray dry.
5. Finally, put the tray back into the unit.

## 7.11 Replacing the main fuse

### WARNING

#### Electric shock

Disconnect the power plug at the unit end before replacing the fuses.

### NOTE

#### Fuse type

The main fuses F1 and F2 are of the T4.0A H250V type. They are available under REF 6756444 (fuses PPU spare).

➤ Use only fuses of the same type in the fuse holder!

- ✓ The power plug must be disconnected.
- 1. Use a screwdriver to carefully pry off the cover of the fuses on the back side of the unit.
- 2. Pull out the fuse holder.
- 3. Replace the defective fuses.
- 4. Reinsert the fuse holder.
- 5. Close the cover.

## 7.12 Consumables:

The following consumables and spare parts are available for the Primeprint PPU unit.

Designation	REF
Side cutting pliers DS	6758663
Spatula DS	6758655
Platform holder replacement	6756402
Hose set, nitrogen connection	6758648
Primeprint PPU activated carbon filter	6745603
Primeprint PPU ozone filter	6752138
Wash tanks	6745546
Individual exposure carrier	6745074
Float assembly replacement	6756386
Stirrer assembly replacement	6756394
Filter mat for light curing chamber replacement	6756295

## 8 Disposal



In accordance with Directive 2012/19/EU and national disposal regulations regarding old electrical and electronic devices, please be advised that such items must be disposed of in a special way within the European Union (EU). These regulations require the environmentally friendly recycling/disposal of old electrical and electronic devices. Such items must not be disposed of as domestic refuse. This is indicated by the printed icon of the "crossed out trash can".

### Disposal procedure

We feel responsible for our products from the first idea to their disposal. For this reason, we give you an option to return our old electronic and electrical devices.

If you wish to dispose of your equipment, please proceed as follows:

#### In Germany

To initiate return of the electrical equipment, please send a disposal request to enretec GmbH. You have the following options for this:

- Tel.: +49 800 805 432 1
- Email: [services@enretec.de](mailto:services@enretec.de)

You can arrange the transport to enretec GmbH yourself or commission enretec GmbH with the organization.

Prepare the device for transport in accordance with the "Important regulations for the return of old electrical equipment". Available online at ([www.enretec.de](http://www.enretec.de)).

In accordance with the national disposal regulations regarding old electrical and electronic devices (ElektroG), we as the manufacturer assume the costs for disposing of the electrical and electronic devices in question that were purchased from us on or after August 13, 2005. Disassembly, transport and packaging costs shall be borne by the owner/operator.

By using this return option, we jointly ensure that any substances harmful to the environment and health contained in the devices are disposed of in compliance with the law and that the equipment is recycled in the best possible way.

If your unit is movable, it will be collected from the practice. If it is permanently installed, it will be picked up curbside at your address by appointment.

### WARNING

Before disassembling and disposing of the device, all parts must be properly prepared (cleaned, disinfected, sterilized).

#### Other countries

For country-specific information on disposal, contact your local dental dealer.

**IMPORTANT**

Operators of equipment with storage functions for customer and patient data are responsible for deleting all personal data before disposing of the equipment.

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We reserve the right to make any alterations which may be required due to technical improvements.

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