

# Polishing Compact Unit **WP-Ex 2000 II**



**SERVICE MANUAL**

**Dear customer,**

Thank you for choosing a product from the Wassermann range. Wassermann Dental-Maschinen incorporates the highest standards of quality and the latest technology. In order to enjoy maximum performance and years of trouble-free operation, please read this service manual carefully before you connect this device and start work, and operate the device according to the recommended guidelines. The operation safety and the functionality of this device can only be guaranteed if you follow both the general safety guidelines and the applying laws to prevent accidents as well as the precautions given in this service manual. We are not liable for any damages which occur due to inappropriate usage or faulty operation of this device.



Make sure that anyone using this device has read and understood this service manual.

Keep this service manual in a safe place where it can be referred to as required at any time.



The unit complies with the relevant EU guidelines.



The unit is subject to the EU guidelines 2012/19/EU (WEEE Directive).

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## 1 Features

- Compact and powerful stainless steel polishing unit for daily lab use
- Powerful, durable and maintenance-free induction motor
- 2 settings, 1500 bzw. 3000 min<sup>-1</sup>
- Jacket-cooled motor, dust protected
- 9 mm standard cone on end of shaft for mounting brush spindle
- Two extra large micro fine dust filterbags, easy to replace
- Impact-resistant, adjustable security protection sheed
- Integrated daylight LEDs
- Daylight LED spot available as special accessory
- Two easily removable full rubber polishing troughs
- Various safety systems
- Low-noise extractor
- Housing made of stainless steel
- Integrated drawer
- Emergency off-switch and restart protection guarantee safety at work

## 2 Safety Symbols used in this Manual



### **Warning!**

This is a warning of risk situations and dangers.

Failure to observe this warning could be life-threatening. These warnings has to be observed.



### **Information!**

This symbol draws your attention to specific features that has to be observed.

### 3 Safety Guidelines

Configuring and operating this equipment requires **precise knowledge** and **observance** of the instructions in this **service manual**. The equipment is designed only for its intended application.



**WARNING:**

Servicing and repairs should be carried out only by authorised specialists.  
Disconnect the power plug before starting any maintenance work.



Make sure that the equipment is connected to the correct power source.




- The retaining brackets (white) have to be above the filter frame so that the filter bag is fixed in place, and the cover must be closed.
- The **main switch** also functions as **safety switch**. If the power supply is interrupted, **the switch will go into centre position** in order to prevent an uncontrolled operation of the motor when the power supply is restored.  
**Reset** is effected in two steps:  
Step 1: Switch rocker into OFF position.  
Step 2: Reset circuit breaker. Main switch into ON position.
- The fuse of the **WP-Ex 2000 II** is located next to the socket of the supply line plug.

## 4 Responsibility for Operation or Damage

The responsibility for operating the device lies exclusively with the owner or user if said device is incorrectly serviced, maintained or altered by persons not employed by an authorised dealer or if the device is used in a manner contrary to its specified purpose. The unit has to be maintained and operated in accordance with this service manual. Wassermann Dental-Maschinen GmbH is not responsible for damage arising from the **nonobservance** of these instructions.

Warranty and responsibility provisions contained in the sales and supply conditions of Wassermann Dental-Maschinen GmbH are not extended by these instructions.

### 4.1 Warranty

 The warranty period for our equipment is 12 months. If faults occur within the warranty period, contact your dental depot or get in touch directly with our service department.

Your equipment should only be operated in perfect condition. If faults occur which could harm operators or third parties, the unit should not be used until it has been fixed.

This warranty does not cover damage caused by improper use, external mechanical causes, transport damage or interference with the unit by unauthorized persons.

## 5 Application

This polisher is used for polishing dental appliances. Its integrated suction system\* guarantees optimum performance.


\*(only item no. 146978)

Only use the device for this type of application.

## 6 Before Starting


### 6.1 Transport


Before transporting the unit, ensure that it has been unplugged from the power socket. Make sure that it is packed correctly in order to avoid accidental damage.


-  Be sure to check for any transport damage when unpacking the goods. Note down any damage if found.

### 6.2 Installation

Open the box, remove the packing materials, and carefully lift out the device and accessories. Check the included accessories.

-  For transport ex works the polishing motor is supported by a stable paperboard block. Please remove this transit support before using the unit. After removing the cardboard box also the integrated drawer can be opened easily.

-  The device has to stand horizontally on a steady and even surface. Install the device in a place where it will not block the working area and the functionality (take the dimensions into account). Make sure that there are about 10 cm of free space on each side to guarantee air circulation (heat dissipation).

-  Do not install the unit outdoors or in places without proper ventilation. Before start-up, be sure the device reaches room temperature.

### 6.3 Storage

The unit location is very important when it comes to workplace safety, even if it is only to be set up there for a short period. The room should be dry, well ventilated and vibration-free. An even temperature and wooden supports also help. The unit should not be stored or set up outdoors. If the unit is to be stored for an extended period, protect it from moisture and dust.



## 7 Installation/ Start-up



**Before** starting the unit, connect up the following:

### 7.1 Installing and Removing the Brush Spindles

The nuts must first be removed before you install the brush spindles. Use a cloth to ensure that the shaft ends are free of grease and then remount the nuts.

Use compressed air to remove any dust and dirt from the brush spindles.

Then install the spindles as marked: **L = left and R = right**. Fix the spindles in place by tapping lightly and carefully on the tip of the taper using a hammer and a plastic block.

**Do not use force as this could damage the bearings and void the warranty.**

**Finally**, insert the power plug into the socket, making sure that the mains and the unit operate on the same voltage.

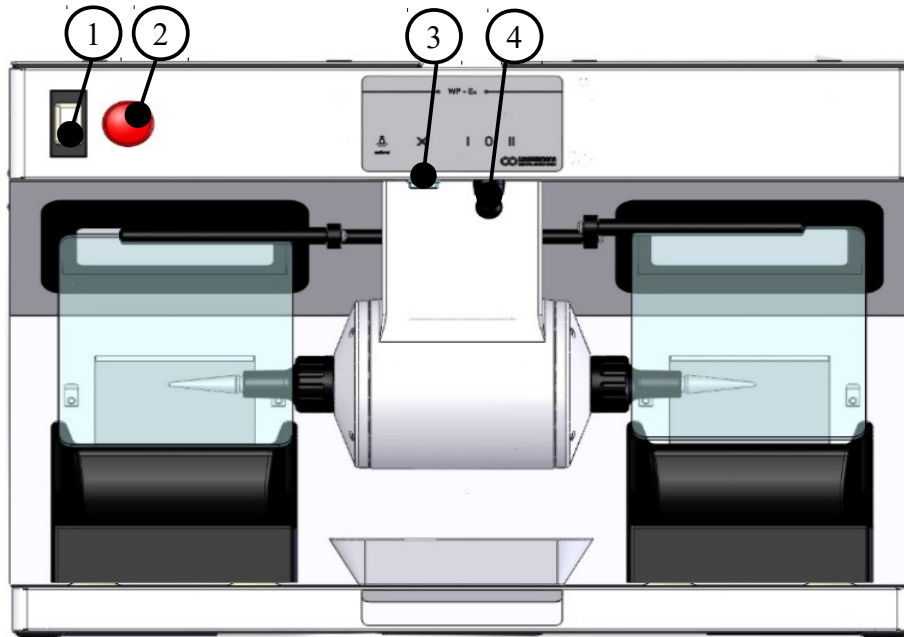
When the motor is on, the spindles must run true. If they do not, repeat the installation process.

## 8 Operation

### 8.1 General Operating Instructions

All instructions for using the unit, whether in verbal or written form, are based on our own experience and experimentation and can only be regarded as guidelines.

## 8.2 Handling of the Unit



- ① Main / Protection switch: The device is powered.  
The lighting is on.
- ② Emergency off: After pushing the emergency off [2] and a check of all facts, the unit can be restarted by switching on the main switch [1].\*/\*\*

\*In some first generation units the emergency off button has to be unlocked by pulling it backwards!

\*\* **Reset** is effected in two steps

(valid for units 06-2021 and younger, equipped with accordion-style rocker switch):

Switch rocker [1] into OFF position.

Reset circuit breaker. Main switch [1] into ON position.

- ③ Rocker switch: On / Off switch suction
- ④ Toggle switch: Position I = Speed 1500 min<sup>-1</sup>  
Position 0 = Motor turn off  
Position II = Speed 3000 min<sup>-1</sup>

- The **WP-Ex 2000 II** is powered by switching on the main switch [1].



The **main switch** also functions as **safety switch**. If the power supply is interrupted, **the switch will go into centre position** in order to prevent an uncontrolled operation of the motor when the power supply is restored.

**Reset** is effected in two steps:

Step 1: Switch rocker [1] into OFF position.

Step 2: Reset circuit breaker. Main switch [1] into ON position.

- The suction can be turned on or off manually with the rocker switch [3].
- With the toggle switch [4] two speed settings can be chosen.

## 9 Troubleshooting

<b>Fault</b>	<b>Cause</b>	<b>Solution</b>
Spindles do not stay in place	Spindles too loose	Use light hammer taps to fix spindles in place
Spindles cannot be undone	Spindles located too firmly on tapers	Contact our service department
Little to no suction*	Filter bag full	Replace filter bag
Bearing noise	Faulty bearing	Contact our Service department
Light does not work	LEDs defective	ATTENTION: The LEDs right and left are in series. That means both LEDs do not work although perhaps only one of them is faulty. Please check this in advance and replace only the faulty LEDs.
No function	Rocker actuator [1] into centre position	<i>(valid for units 06-2021 and younger)</i> Switch rocker [1] into OFF position. Reset circuit breaker. Main switch [1] into ON position.
	Fuse is damaged	Disconnect the power plug before starting any maintenance work. Change the fuse: REF 582013 FUSE 6.3 A M
<i>Motor does not start</i>	<i>Emergency off is pushed</i>	<i>If necessary (valid only for some first generation units): unlocked the button by pulling it backwards, than restart the unit by switching on the main switch</i>



If the above recommendations do not solve the problem, contact your dental depot or our service department.

## 10 Care and Maintenance

### 10.1 Cleaning



Disconnect the power plug before starting any maintenance work.

The identification plate has always to be kept in easily legible condition and has not to be removed.



Remove external dirt from time to time with some form of cold cleaner.

Use only cold cleaners to avoid damaging the paintwork or removing the lettering.

The equipment should be cleaned at regular intervals to ensure trouble-free operation.

It requires only normal cleaning (sponge, damp cloth, mild detergent) and no further chemical additives.




Make sure the disassembly nuts for the brush spindles remain clean within the holes. Pay particular attention when polishing with pumice.



When undoing the nuts, remember that the **left side has a right-hand thread** and the **right side a left-hand thread**.

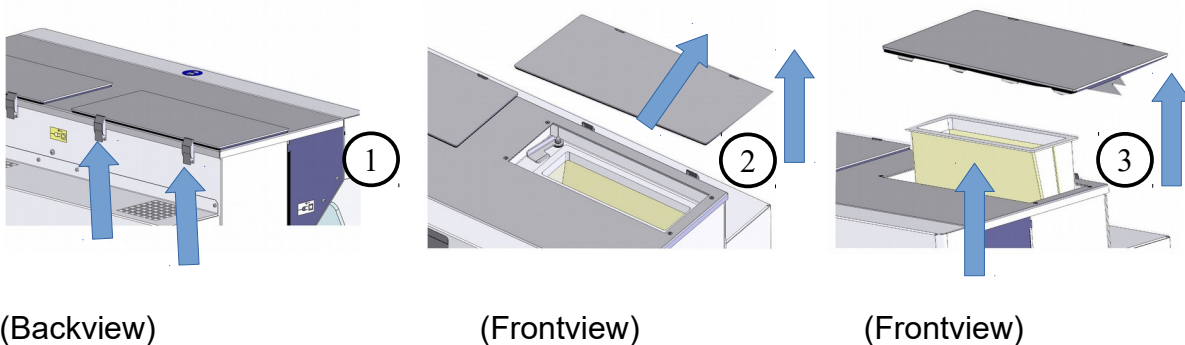
## 10.2 Maintenance

The unit does not require any servicing. Just make sure that the device is kept clean and a matched filter change\* should take place according to the needs.

-  The unit is equipped with 2 extra large micro fine dust filterbag.  
If the suction power decreases, please change the filter!\*

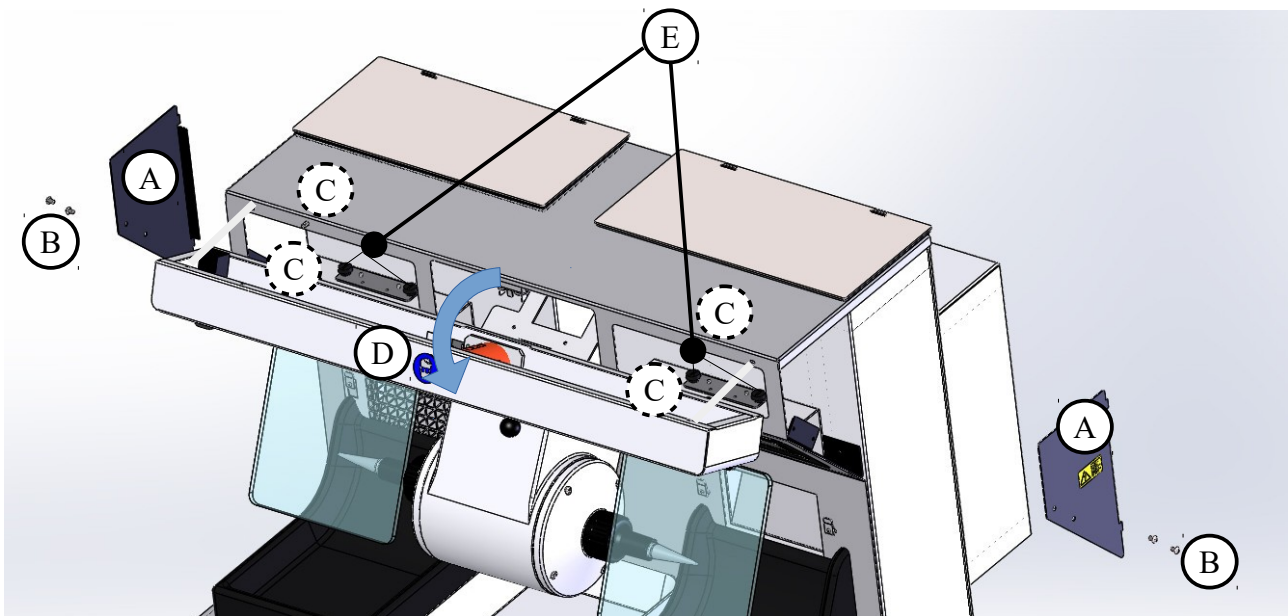
### 10.2.1 Filter and Changing the Filter \*(only item no. 146978)

Open the two clamps on the rear panel. Then the cover can be slid back and be removed. Turn the retaining brackets (white) above the filterframe sideways, so that the filterbag can be changed. Insert new filterbag, making sure that the filterbag is smoothly inserted into the unit. Afterwards the retaining brackets (white) have to be turned back above the filter frame so that the filterbag is fixed in place. Replace the cover, slide forward and secure with two clamps. Do the same with the second cover and the second filter.



- ① Loose the clamps
- ② Lift the lid in the back slightly and push it backwards
- ③ Remove the cover and change the filter.

## 10.2.2 Changing the Integrated LEDs



**Disconnect the power plug before starting any maintenance work.**



**ATTENTION:** The LEDs right and left are in series. That means both LEDs do not work although perhaps only one of them is faulty. Please check this in advance and replace only the faulty LEDs.

- To open the service covers [A] on the right and left side of the unit unscrew the four screws [B] by using an Allen wrench.
- Then loose the four knurled screws [C] of the cover [D] inside the unit .
- The cover has not to be removed completely. It can be carefully hinged down and placed on the engine.
- Resolve the plug connection of the LED power cable.
- Dissolve now the two knurled screws [E] and remove the defective LED strip from the white retaining plate.
- Then insert the plug of the new LED bar in the plug connector and tighten the new LED strip with the knurled screws [E].
- Now fold up the cover [D] and tighten the four knurled screws [C] inside the unit hand-screwed.
- Insert service covers [A] right and left and fix each with the two screws [B].

### 10.2.3 Changing the Fuse

The fuse of the **WP-Ex 2000 II** is located next to the socket of the supply line plug.  
Remove the damaged fuse and insert a new one.

### 10.3 Repairs



Servicing or repairs to the unit has only to be carried out by qualified technicians.  
Only original spare parts are to be used. Responsibility for the product is voided  
if unauthorised persons alter it or if inappropriate components are installed.

### 10.4 Spare Parts

If necessary please contact our service hotline phone.

### 10.5 Service Hotline 0049 (0)40 730 926 -20/ -24



## 10.6 Scope of Delivery/ Accessories

Included parts	Item no
Brush spindle right	152022
Brush spindle left	152025
Supply line	592012
Micro fine dust filterbag, 1 set =2 pieces	611005
Polishing trough, 2 pieces	2 x 146503
Drawer (W 621 x H 23 x D 219 mm)	146388
Storage bowl (W 257 x H 40 x D 198 mm)	830409

Accessories/ Spare parts	Item no.
Brush spindle right	152022
Brush spindle left	152025
Brush spindle 125 mm right	152043
Brush spindle 125 mm left	152044
Stone holder right	152056
Stone holder left	152057
Drill chuck right 1-6 mm clamping	152049
Micro fine dust filterbag, 1 set =2 pieces	611005
Storage bowl (W 257 x H 40 x D 198 mm)	830409
Suction protective grid	146396
Daylight LED spot	146390
Fuse 6.3 A M	582013

## 11 Technical Data

WP-Ex 2000 II	Item no.: 146978 with fan
Voltage*	220–240 V / 50/60 Hz
Power consumption	2.8 A
Output	650 W
Fan capacity	445 m <sup>3</sup> /h (free-blowing)
W x H x D	680 x 486 x 527 mm
Weight with motor	52 kg
Sound level	≤ 65 dB (A)
Speed	1500 / 3000 min <sup>-1</sup>

\*Other voltages on request.

The noise level of the unit amounts to ≤ 65 dB (A).



Technical changes reserved.

## 12 Disposing of the Unit

The unit has to be disposed by an authorized recycling operation. The selected company has to be informed of all possibly health-hazardous residues in the unit.

### 12.1 Information on Disposal for Countries within the EU



To conserve and protect the environment, prevent environmental pollution and improve the recycling of raw materials, the European Commission adopted a directive that requires the manufacturer to accept the return of electrical and electronic units for proper disposal or recycling.

Within the European Union units with this symbol should not therefore be disposed of in unsorted domestic waste.

For more information regarding proper disposal please apply at your local authority.

**13 EU Declaration of Conformity**

in accordance with 2014/35/EU (Low Voltage Directive) and 2014/30/EU (Electromagnetic Compatibility Directive) and 2006/42/EC (Machinery Directive) and 2011/65/EU (RoHS Directive)

Manufacturer: **W A S S E R M A N N** Product description: Polishing  
Dental-Maschinen GmbH Compact Unit for  
Rudorffweg 15-17 dental  
21031 Hamburg applications  
Germany

Model: WP-Ex 2000 II Item no. 146978

Applicable standards: DIN EN 61010-1  
DIN EN 61000-6-3  
DIN EN 61000-6-1  
DIN 45635-1  
DIN EN 60335-1

Hiermit wird bestätigt, dass die oben bezeichnete Maschine den genannten EU-Richtlinien entspricht. Diese Erklärung wird ungültig, falls die Maschine ohne unsere Zustimmung verändert wird.

This is to confirm that the above mentioned machine complies with the described EU guidelines. This declaration becomes invalid if the machine is modified without our approval.

Cette machine est conforme aux normes en vigueur d'Union européenne. Cet avis est nul et non avenant si cette machine est modifiée sans notre accord.

Esta máquina, anteriormente mencionada, cumple con los límites requeridos por el reglamento UE. Ahora bien, esta declaración quedará invalidada en caso de realizar modificaciones al aparato sin nuestra aprobación.

Hiermee wordt bevestigd dat bovengenoemde machine voldoet aan de voorgeschreven EU normen. Deze verklaring verliest geldigheid als er zonder onze uitdrukkelijke toestemming wijzigen aan de machine worden aangebracht.

Place, date: Hamburg, 2021-05-21

Company stamp :

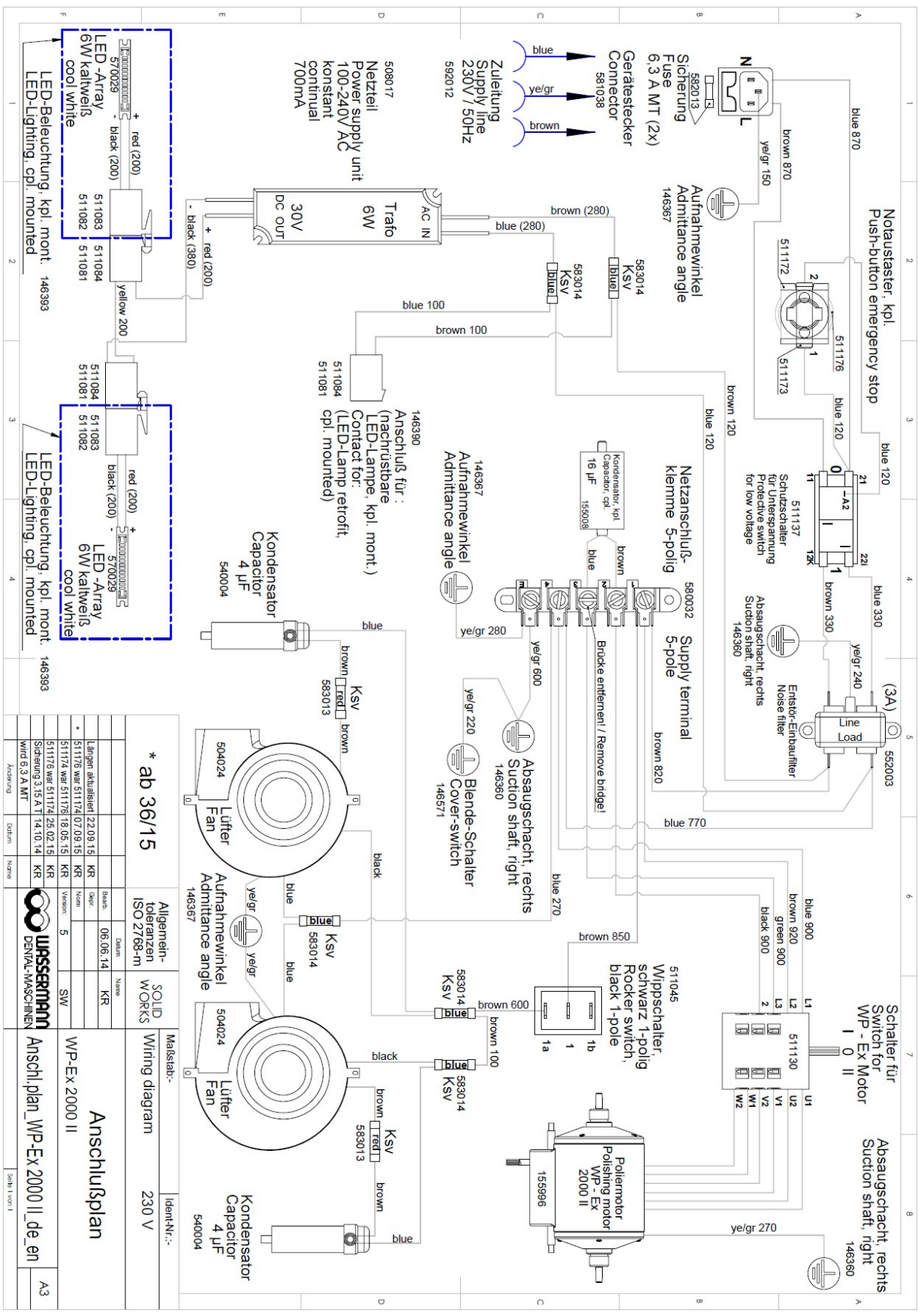


Signature: \_\_\_\_\_  
Sven Wassermann  
(Managing Director)



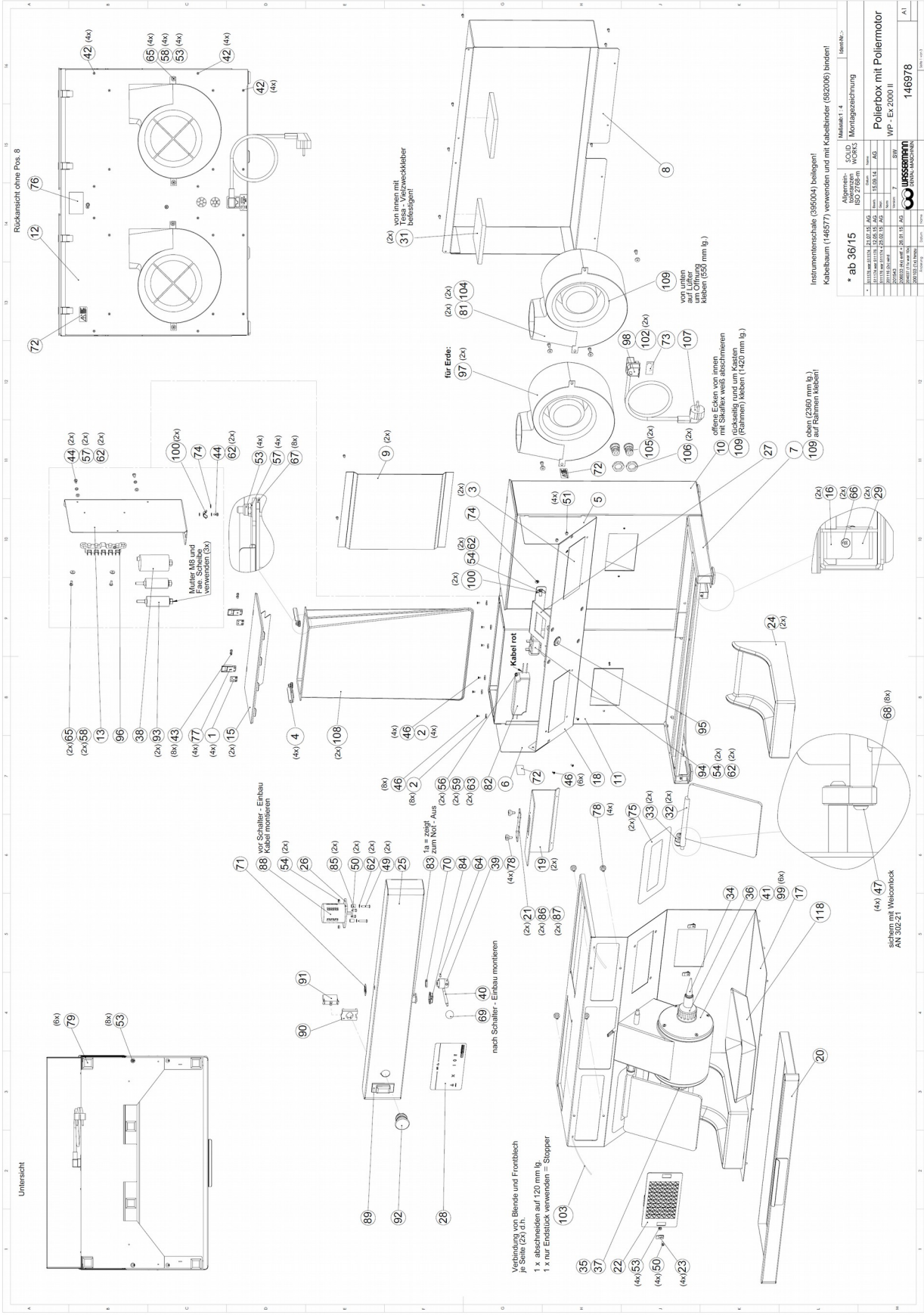
**WASSERMANN**  
DENTAL-MASCHINEN GMBH  
Rudorffweg 15-17 · 21031 Hamburg

**14 Wiring Diagram WP-Ex 2000 II**



* ab 36/15		Allgemein-toleranzen ISO 2768-m		Maßstab: -		Ident-Nr.:-																																																																
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**15 Spare Part Diagram WP-Ex 2000 II**



1234567891011121314151617181920212223242526272829303132333435363738394041424344

**offene Ecken von innen mit Sikaflex weiß abschmieren**

**rückseitig rund um Kasten (Rahmen) kleben (1420 mm lg.)**

**um Filterloch kleben (640 mm lg.)**

**für Erde:**

**nach Einbau:**  
-offene Ecken von innen mit Silikon transparent abdichten  
-außen komplett mit Sikaflex weiß abschmieren

**rundum auf Anlagefläche kleben (720 mm lg.)**

**A-A (1 : 5)**

Stück	Beschreibung	lfd. Nr	Material	Zeichnungsnr.
3	Schraube DIN 7985 M4 x 8	44	VA	200040
8	Schraube DIN 7985 M3 x 5	43	ST ZN	200027
12	Schraube DIN 7985 M3 x 8	42	VA	200005
1	Poliermotor	41		155996
1	Schalstange	40		155110
1	Schaliknebelsockel	39		155108
1	Kondensator kpl.	38		155008
1	Abziehmutter linke Seite	37		153007
1	Abziehmutter rechte Seite	36		153004
1	Bürstenspindel, links	35		152025
1	Bürstenspindel, rechts	34		152022
2	Gelenk, kurz	33		146581
2	Schutzscheibe, kpl.	32		146580
2	Luftströmungsfilter	31		146578
1	Kabelbaum	30		146577
2	Auszugbegrenzer	29		146576
1	Textfolie, selbstklebend	28		146575
1	Halbleuch	27		146573
1	Schalterplatte	26		146572
1	Blende-Schalter	25		146571
2	Poliertrög mit Saugfuss	24		146503
4	Gitterhaken	23		146397
1	Ansaugschutzgitter	22		146396
2	LED-Beleuchtung, kpl. mont.	21		146393
1	Schublade, kpl. mont.	20		146388
2	Kühlblech für Beleuchtung	19		146379
1	Motorhalter	18		146378
1	Frontblech	17		146377
2	Schubladensicherung	16		146376
2	Deckel, kpl.	15		146370
2	Prallblech	14		146368
1	Aufnahmewinkel (E-Teile)	13		146367
1	Rückwand	12		146366
1	Absaugschacht, links	11		146363
1	Absaugschacht, rechts	10		146360
2	Filterschutz	9		146359
1	Lüfterabdeckung	8		146357
1	Geräteeuß, kpl. geschw.	7		146350
1	Seitenteil, links	6		146349
1	Seitenteil, rechts	5		146348
4	Niederhalter	4		146210
2	Lampenscheibe	3		146206
20	Gewindeplättchen M3	2		145014
4	Distanzblech	1		140268

**\* ab 36/15**

Allgemein-toleranzen ISO 2768-m		SOLID WORKS	
Datum	Name	Datum	Name
15.09.14	AG		
12.05.15	AG		
25.02.15	AG		
201116 (2x) wtd			
201543			
206033 (4x) entf + 26.01.15	AG		
204037 (11x) wtd			
200103 (1x) hinzu			

**Polierbox mit Poliermotor**  
WP - Ex 2000 II

**146978**

Maßstab: 1 : 4  
Montagezeichnung

Ident-Nr.:-

Version: 7  
SW

**WASSERMANN**  
DENTAL-MASCHINEN

Änderung Datum Name

Seite 2 von 3





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