



# Manual



## Azuras PLUS

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## Foreword

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The *Azuras Plus* foot care unit was produced according to strict quality criteria and uses the latest technology in its design. The images in this manual may vary slightly from the product you have bought as we are constantly developing our products.

This user manual includes a detailed description and explanation of how to use the *Azuras Plus* unit. If you have any questions or suggestions, you can contact us by telephone or email.

This user manual belongs with the *Azuras Plus* unit. Keep it somewhere safe. If you give this product to someone else, please include this document as it includes important information on how to correctly use the product.

### *Short description of functions*

The *Azuras Plus* is a device for the treatment of callus and nails. The handpiece is compatible with rotating tools such as diamond polishers, steel cutters and ceramic cutters. These can be worked with up to a speed of 40,000 rpm thus providing an efficient way of removing tissue. The direction of rotation can be changed by pressing a button. The integrated spray function emerges reliably bundles emerging dusts. The rotation speed can be adjusted using the keyboard. The amount of spray liquid is adjusted via knob. All other functions can be accessed with the touch display. The device display will notify you when the washer needs to be changed and when the device is due for inspection. Functions and maintenance steps will be described with pictures and videos shown in the display. You can further use an USB stick featuring your own pictures. For example, you may want to show your customers the separate successful steps from treatment to treatment.

## Safety Instructions

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The installation of the working area has to correspond to the relevant regulations. Set up the unit in such a way, that the air slits are not blocked and the extracted air can escape well.



This device shall only be used by persons who are familiar with feature and function of the unit.



This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children should be supervised not to play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.



To avoid the risk of electrocution only connect the device to the main power supply. If you pull the power plug, it will stop the connection to the main power supply. Set up the unit so that the power plug is always accessible. The power switch should also always be easily accessible.

## Safety Instructions

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Only switch on the unit if the handpiece rests secured in the handpiece holder, or if you hold it safely in your hand.



Prevent any liquids from entering into the control unit, since this could damage the electronic elements. Clean the outside of the box only with a damped cloth. Make sure, that you have unplugged the unit before.



Only when pulling the mains cable, you can ensure that the device will be completely disconnected from mains. Check the mains cable regularly for damages and in case of such, have it changed or repaired by an authorized service center.



Prevent your hair from wrapping itself around moving parts. If applicable, wear a hair net.



When working with materials, which might create dust or moisture, use a drilling unit with suction or spray technique. Wear a nose and mouth protection. Always follow the safety instructions, provided by the manufacturer of the materials being formed and used.

## Safety Instructions

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For safety reasons, you must always wear disposable gloves and protective glasses when operating this unit. In addition, a face mask conforming to EN 14683 type IIR or EN 149 FFP 2 must also be worn.



Ensure that the patient's foot and the handpiece are held firmly in place during the operation. To prevent injury, work with extreme caution on the foot of the patient and use only light pressure.



If water leaks from the unit, then a disturbance is present. The unit has to be separated from the socket and cannot be used any longer.



Only use distilled water plus a sterilizing additive, e.g. hadewe AquaHy (art. no. 8555). If you use other brands pay attention to their manuals if you can use them for this purpose. Never use tap water or alcoholic fluid, or other burnable liquids. In case, you are working with an alcoholic fluid, or other burnable liquids, there is always the danger of fire or explosion hazards. Never refill the tank directly over the unit to avoid in case you accidentally spill water, this will flow into the unit.

## Safety Instructions

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Change the spray liquid every day. Always add disinfection additive to the distilled water.



Rinse the tank daily and fill it with fresh water every day.



Empty the unit if it is not in use for a longer period of time, e.g. before vacations. Clean out the tank. Set the spray function on maximum. Now start the spray function, and the water will spray for approx. 3 min. The fluid will be blown out of the complete spray system and handpiece.



To ensure that the bur/tool sits firmly in the chuck, do not work with tools which

- have an oily shaft.
- are worn.
- are bent.



Before using the equipment, assure that

- the tool can be pushed far enough into the chuck (test this with a dipstick and clean if necessary),
- the inserted tool sits properly in the chuck and will not cant/jam while clamping it,
- the tool is approved for using it at the max

## Safety Instructions

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speed (see manufacturer's instructions), or

- only use the speed required by the instrument,
- the tool is absolutely dry.



For safety reasons, do not change the tool while the motor is running.



Switch off the unit immediately if

- the bur comes off during the treatment itself,
- the motor blocks during the treatment.



The light on the handpiece is for lighting the area being treated. Do not look directly into the light.



Always follow the operating instructions. Do not carry out any repairs, modifications or maintenance work yourself. This is only to be accomplished by an authorized specialist. The mains cable may also only be changed by the manufacturer, or an authorized specialist. Maintenance records may be supplied to repair workshops and trained technicians upon request. Never remove the housing, especially not while the equipment is plugged into the socket, since some components are under electric voltage. Any unauthorized or improper



## Safety Instructions

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handling (e.g. trying to repair the unit) of the equipment will immediately nullify the guarantee/warranty and any other liabilities of the manufacturer.



Using the memory buttons: Only use burs/tools which are permitted for speed level saved under (15) to (17)!



When the device is brought out of standby mode, it will run with the rotation speed used last. Take care to not start the mill at an overly high rotation speed. Select the required rotation speed before changing the milling tool.



In case the touch display shows a damage or does not work properly the device may not be used any longer. Please send it to a qualified service workshop for repair.

## Cleaning and Disinfection

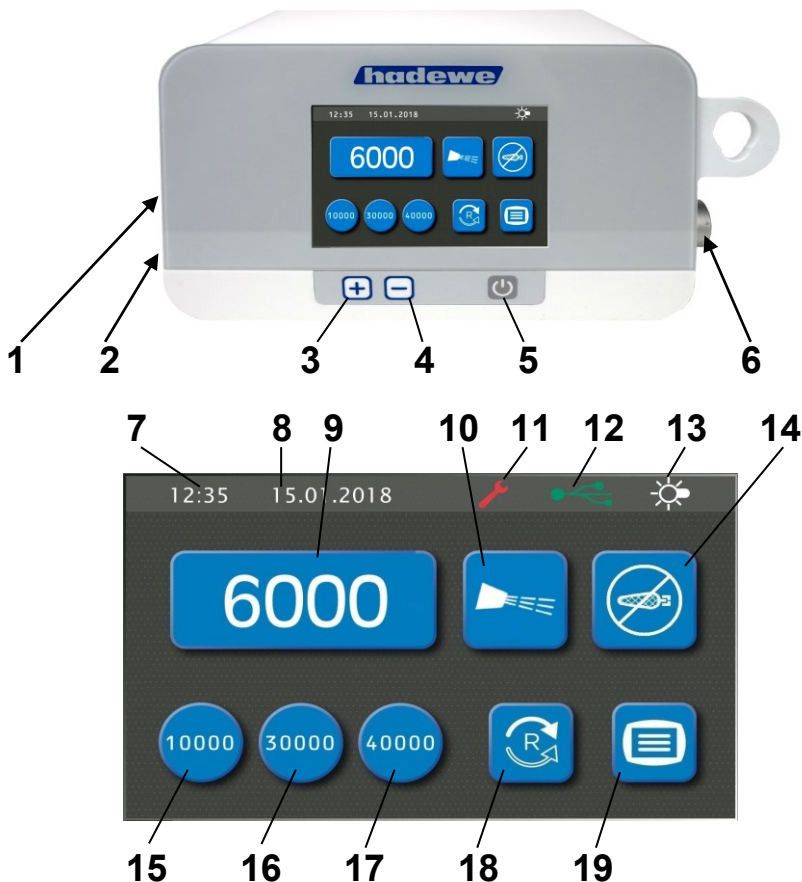
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The device is designed to be compatible with rotating instruments which do not penetrate the skin or mucosal or inadvertently may still cause injuries. For this application please adhere to the cleaning and disinfection instructions provided below. After every treatment please carry out the following steps:

- Remove the rotating tool (e.g. bur, capper etc.) first. Then handle the tool according to the instructions of its manufacturer.
- Remove tissue remains by wiping off the unit with a mildly moistened paper cloth. Afterwards clean all surfaces with disinfection cloth (e.g. Mikrozyd AF Tücher of Schülke and Mayr). There is no limit to the number of times this device can be cleaned and disinfected during its recommended lifespan.

# Discover Device



- |   |   |       |  |
|---|---|-------|--|
| 1 | main power switch   | 9     | speed display  |
| 2 | USB port  | 10    | turn OFF / ON spray                                    |
| 3 | increase speed  | 11    | maintenance required                                   |
| 4 | reduce speed  | 12    | USB stick plugged in (green light)                     |
| 5 | <u>press briefly</u> : switch unit on<br><u>press again briefly</u> : turn on the handpiece<br><u>press long (keep pressed)</u> : switch unit off (standby) | 13    | light (yellow when switched on)                        |
| 6 | spray regulator knob  | 14    | turn off handpiece & spray / turn on airflow           |
| 7 | time  | 15-17 | memory keys for speed                                  |
| 8 | date  | 18    | changing the direction of rotation (left/right switch) |
|   |   | 19    | bringing up menu with additional functions             |

## Before Use

Please read through the instructions carefully before using the unit and carefully note the safety advice. Always keep this manual accessible to any users of the drill.

### Area of Application

This device should only be used by people who have completed a foot care qualification. Before use the operator should familiarize with the device by reading this manual or being instructed by another.

The device must only be used in closed spaces. It may be used in hospitals, in a commercial environment or in patient's homes. The device is not intended for use in operating rooms.

The control unit can be set up in a cabinet or can be used as a portable unit, e.g. in a carry case. It is suitable for the following scopes:

- foot care (milling, trimming and polishing),
- manicure (grinding, milling and polishing works).



The device is determined of operating rotating instruments, which will not penetrate the skin or mucous membrane if used appropriate, but could evoke damages accidentally.



Caution: In the area of pedicure you have to work with spray techniques.

### Operation

The working area must conform to the conditions described. Set up the unit in such a way, that the air slits are not blocked and the extracted air can escape well. To guarantee unhindered air flow there must a gap of at least 12 cm to the back-side of the device.

Position the device so that the operating buttons are easy to reach and the outlet of the hose is a maximum distance of 60 cm from the patient's foot. The unit should be placed 30 – 90 cm above the floor.

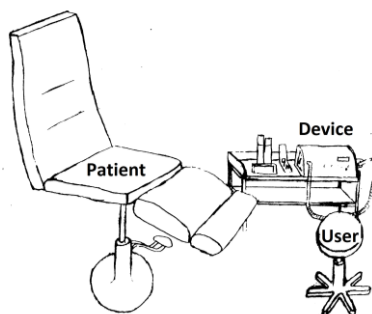


Image: Example of positioning of foot care unit in treatment room

# Before Use

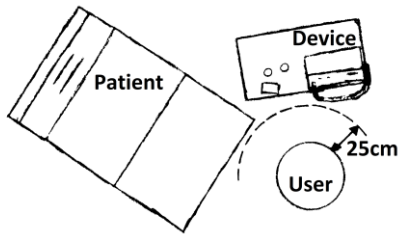



Image: Bird's-eye view of work area

If you have a foot switch, insert its plug into the port on the right of the device which displays this symbol .



Make sure, that the tank is filled with spray liquid. Ensure that the tool is fixed.

On the left side of the device you will find the main power switch. Press the main power switch (1) to turn the unit on.



The display prompts you to set the device language:



This is followed by 5 other pages with important clues. With  you proceed to the next page. On the last page press  to start the process. The counter for calculating the maintenance proposal will automatically be set to zero.

To use the handpiece and spray function press the button (5) on the front of the unit.

# Usage

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In the following section the order in which you should use the device is described. Additionally, the individual steps will be explained in detail. Read the complete manual before use.

## Operating Steps

Once you have clamped in the instrument, press the standby button (5) to turn on the screen. Select with the buttons (3) and (4) for the desired speed. The instrument manufacturers often give out recommendations for the optimum speed. In any case, it must be ensured that the maximum permissible speed is not exceeded. Now press the standby button (5) again to rotate the handpiece.

By means of the icon (18) you can choose the direction of rotation. As a rule, it works clockwise. Also, most rotational instruments (steel instruments with cross cutting) are optimized for the clockwise rotation. In diamond cutters or grinders, the direction of rotation does not affect the removal rate. Working in reverse may be useful if the resulting milling dust is swirled in a clockwise direction in the field of view.

Now, you can turn on the spray by pushing button (10). By using the spray regulator knob (6), you can set the amount of the spray liquid.

After setting the speed and the

spray amount, you can start with working.

Frequently used speed can be saved. First set the desired speed. Save this by pressing one of the three memory keys (15), (16) or (17) for 4 seconds. To recall the stored speed quickly, briefly press the corresponding memory key.

If you want to interrupt or finish the job, press the standby button (5). Handpiece and spray switch off then. You can put the handpiece on the handpiece holder present at the right side of the device. Alternatively, by holding down the switch on the handpiece or by pressing the button on the foot switch either can be turned off.

By long pressing the standby button (5) the device turns off and is in standby mode.

We recommend you to disconnect the device from the mains power supply if it's not going to be used for a while. This will save electricity. The mains plug must also be removed when it comes to retiring the device.

# Usage

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## Work Positioning

The following images are examples of how to work on various parts of the foot. Always make sure that the foot is firmly gripped and that you can work freely and without strain.



## Usage

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# Usage

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## Infilling the Spray Liquid

Switch off the device. Pull out the spray tank on its handle. Hold the cover of the tank in hand and unscrew the tank. Now fill it with distilled water and anti-germ liquid, e.g. AquaHy (art. no. 8555).



Do not exceed the maximum level when filling the tank.

Now turn the tank cover back on the tank. While screwing back the cover on the tank, make sure that is closed correct. Otherwise there will no pressure be built up. Put the tank back in the housing. Switch on the power switch in the rear of the unit.



Attention: Never use tap water (danger of calcification). Also, do not use explosive or combustible liquids, e.g. alcohol.

Note: Never refill the tank directly over the unit to avoid in case you accidentally spill water, this will flow into the unit.



The water filter (art. no. 3479) has to be fully under water, otherwise no water will be sucked in.



Please only use distilled water together with disinfectant AquaHy (art. no. 8555). Other admixtures could be unsuitable and cause damages at your device. Particularly alcohol-

based spray fluids often attack hoses and make them porous.

## Spray

Turn on the spray function while pushing switch (10). Now the spray system will be filled automatically and a strong spray stream will be blown out of the handpiece for the first 7 sec. Then you can adjust the requested spray stream while turning knob (6).

When turning off the unit or the spray function, the spray liquid is pumped back completely into the tank from the hoses. With this process, a bubbling can be heard in the tank.

# Usage

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## Insert Bur

The handpiece is equipped with a chuck, which can hold all burs with a diameter of 2.35 mm (this is the diameter usually used for tools in podiatry). To open the chuck, push the knob forward with your thumb and leave it there.



Now insert the tool as far as possible. Pull back the knob and the tool will be firmly clamped.



For security reasons, only change the tool if the handpiece is turned off.

## Adjusting the Speed

Put the handpiece back in the handpiece holder or keep it in your hand. Switch ON the unit with switch (5). Now you can adjust the requested speed with the switch (3) and (4). Choose the direction with icon (18).

## Memory Keys

Frequently used speed can be saved. There are 3 memory spaces available. First set the desired speed. Save this by pressing one of the three memory keys (15), (16) or (17) for 4 seconds. The saved speed is now directly available on pressing the memory key. To recall the stored speed quickly, briefly press the corresponding memory key (15), (16) or (17).



Only use burs/tools which are permitted for speed level saved under (16) to (17).



When the device is brought out of standby mode, it will run with the rotation speed and suction power used last. Take care to not start the mill at an overly high rotation speed. Select the required rotation speed before changing the milling tool.

the switch once, the spray stream will stop. If you push it a second time, the handpiece will stop. Pushing the switch, a third time, both functions will start to work again.


By briefly pressing the foot switch, the handpiece and spray are stopped (e.g. to change the tool/bur). By pressing again briefly, the handpiece and spray can be reactivated.



When the display is switched off, you can turn it on by keeping the foot switch pressed (keep pressed long).

## Foot Switch

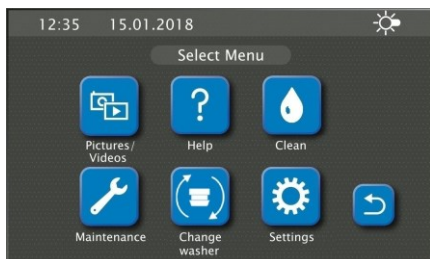
### Operation of the foot switch

Only use the original hadewe foot switch (art. no. 0970) to avoid any damages. Insert the plug of the foot switch into the socket with the symbol .

### Function of foot switch

By holding down the foot switch, the power can be switched ON/OFF. While the spray is on, and you push

## Select Menu



In the select menu, you can use the following functions:

Pictures/Videos: viewing pictures or videos from your USB stick

Help: instructions, help tutorials, troubleshooting

Clean: starts the cleaning program

Maintenance: shows the last maintenance and error messages

Change washer: enter date of change of the washer and display the date of last change

Settings: for setting the time, date and language

With this button  you can return to the previous menu.

## Help Menu



Manual: Here is a short form of the manual. This does not replace the original manual in paper form, as the latter contains more detailed instructions and safety instructions.

Insert bur: this clip demonstrates the clamping of rotary tools

Change washer: video clip that shows how to change the filter bag

Clean chuck: video clip that demonstrates the cleaning of the chuck

Change filter: video clip that shows how to change the water filter

Troubleshooting: solutions to known problems

Fill water tank: video clip that shows how fill the water tank

With this button  you can return to the previous menu.

# Usage

## Settings Menu



Time: set the system time

Date: set the system date

Language: set the language for the device

Safety precaution: Set whether a safety message is to appear from a speed increase of 10,000rpm, which has been caused by the memory keys. If you only use instruments that are approved for a speed of 40,000 rpm, the safety message can be deactivated.

Demo video: activate the demo video

## Confirm Washer Change

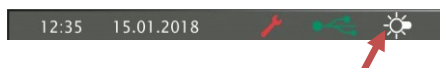
Every 50 hours of operation you will get the message to "Please change washer!". After the washer change, the following must be entered into the instrument. On the start screen, click the icon for the Select Menu:



Then click <Change washer>. Confirm the washer change with YES.

## Turn Light ON / OFF

To turn the light on or off, click the top of the bar on the light icon (13):



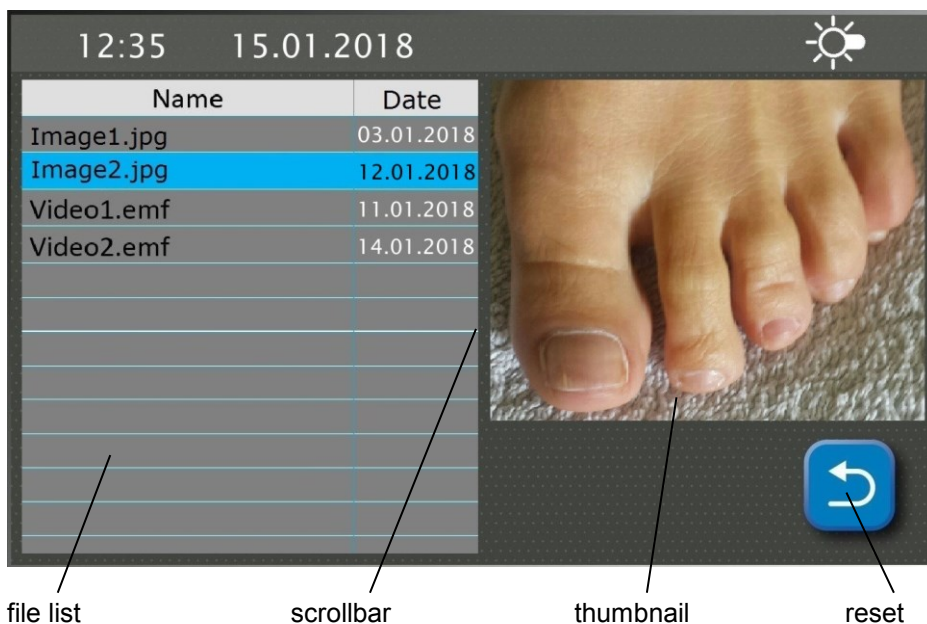
# Usage

## Pictures & Videos

The image and video viewer can be used to view images in JPG format and videos in EMF format from the USB stick. Preferably, use the supplied USB stick (4 GB, art. no. 6354). USB sticks from other manufacturers are mostly compatible. The sticks must have the FAT16 or FAT32 file formatting. Sample files are uploaded on the supplied stick. Deleting these files does not affect the function of the device.

Please note that a maximum of 100 files may be located in the directory for the image viewer.

Click <Pictures/Videos> in the select menu to start the viewer.



In the file list, you can see the files from the USB stick. By scrolling down, you can browse through the list. Select an image and a small preview is shown on the right. Click on thumbnail to enlarge it. Click once more on the enlarged view of the image to return to the thumbnail view.



You can use the program to show the customer the images relating to the progress. To do this, the file name, the customer name and a serial number are required. Use the sorting feature to find the desired image.

# Usage

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## Sort the images

By tapping <Name>, the file list is sorted in ascending order by file name. By repeatedly tapping <Name>, the file list is sorted in descending order by file name.

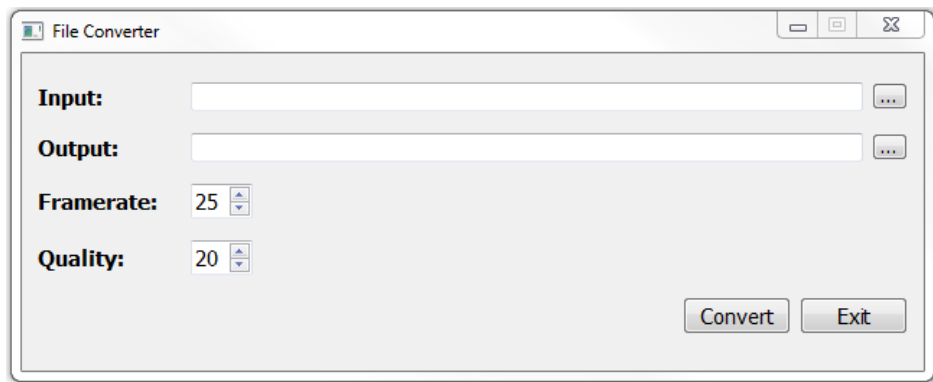
By tapping on <Date>, the file list is sorted in ascending order by date. By repeatedly tapping <Date>, the file list is sorted in descending order by date.

## Available video formats

The EMF format can be viewed. At <http://www.hadewe.net/video-library/> we provide a program ready to convert your own videos from other formats to EMF format.

Open the file to begin installation. Follow the instructions on the monitor.

## The conversion program to be used is File Converter



*Input:* Select a source file. The following formats are supported: MP4, WMV. The source files should be proportionate to 4:3 to be taken so as to avoid distortion when converting.

*Output:* Specify the destination folder. A file name must not be specified. We assume the file name of the source file.

*Frame rate:* Number of frames per second. Values between 10 and 40 are possible. Recommended value: 25.

## Usage

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*Recording quality:* Values between 1 and 31 are possible. The higher the value, the higher the compression, the lower the quality and the lower the file size. Recommended value: 20.

Clicking Convert starts the conversion. The video file [\*.emf] is written in the destination folder.

### Video library

At <http://www.hadewe.net/video-library/> you can download videos and pictures on the subject of foot care for your device. Download this on the USB flash drive in order to consider the devices.


In the video library, you can find videos and pictures that help you to explain the treatment to your customers. Especially new customers are often unsecure, because they do not know what to expect during a treatment. It is helpful to explain the treatment steps to the patient. This is often difficult, especially when the patient cannot see the treatment site. Pictures speak louder than words. Take advantage of our videos to explain to the patient, what steps you will take during the treatment.

In addition, located in the video library, are instructions describing the operation and maintenance of the appliance.



# Messages

## RECOMMENDED MAINTENANCE

→ After prolonged use, replacement of wearing parts such as ball bearings is recommended. The control unit evaluates the period since the last maintenance and the actual operating time and, if necessary, displays a maintenance recommendation. If maintenance is required, this symbol  will appear. Tapping this icon will display the following message:

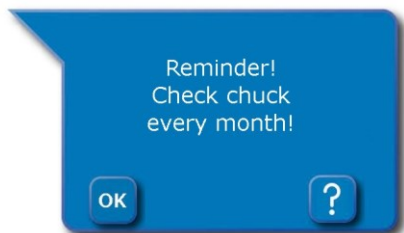


In this case, contact your distributor or repair shop.

## CHANGE WASHER

→ This message will come after 50 hours of operating. Please change the washer. See this manual page 26.

## REMINDER: CHECK CHUCK



→ Every month you will receive a reminder about cleaning the chuck.

See chapter **Cleaning the Chuck** and help video "Clean Chuck" under the menu item "Help".

## SHUTDOWN DUE TO SPEED DIFFERENCE

→ The device switches off when the set handpiece speed cannot be maintained.

## SHUTDOWN DUE TO HIGH LOAD DEACTIVATION

→ The device switches off when the handpiece has been heavily burdened over a longer period of time.

# Maintenance & Care

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## Washer

The top of the handpiece is equipped with a white washer (art. no. 4571). This washer has to be replaced by a new one **every 50 operation hours**, unless exchanging it, water could enter the handpiece and cause damages of the internal parts. You will receive a message in case it has to be changed.

### Exchanging the washer

Screw off the top of the handpiece. Pull out the washer with some tongs. Look for little parts of the washer in the top and around, if you find some, remove such eventually. Push the new washer in the top.



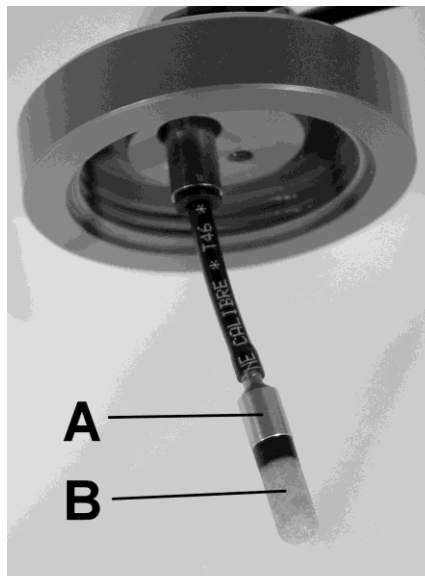
Confirm the washer change (see page 21).

## Water Filter

Even smallest parts of dirt could block the nozzle, which sits in the top. Avoiding such blockages, there is a water filter installed in the cap of the tank. We recommend to change this every time, when it is covered with some dirt, at least twice a year. Still make sure, no parts of dirt enter the tank and rinse it quite regularly.

### Changing the water filter

Take off the cap of the tank. Hold the metal piece (A) in one hand and screw off the water filter (B).



Now you can screw on the new filter (art. no. 3497).

## Cleaning Function

Use the cleaning function if the nozzle is blocked. Turn the unit off using button 5 (Standby).

Remove the water filter at first. (For its instructions see paragraph above.) Fill the tank with distilled water. Close the tank and put it back into the unit. Adjust the amount of spray regulator knob (6) on maximum. Now press icon <Clean> in the display under Select Menu. The complete cleaning process will last three minutes and then switches off by itself. If requested, you could cancel the process by pushing button (5).

During the cleaning process, the water will be washed out of the whole spray system. Parts of dirt are rinsed into the tank. Do not use this water again but clean the tank immediately after realizing a blockage in the nozzle. Otherwise the dirt parts might stick together. Clean the water filter carefully and put it back in the adapter. Refill the tank with new water.



Use the cleaning function only if the nozzle is blocked. Do not use the function if the unit works properly.

## Cleaning the Chuck

Because of the washer, very little dirt might enter the handpiece. In the course of the time, dirt can appear and might interrupt the performance of the handpiece. Therefore, clean the chuck monthly.

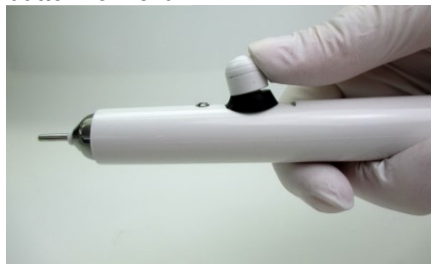
### How to remove the chuck

Screw off the top of the handpiece with the spanner shown in the picture:



Now clean the inside of the handpiece and the top with the brush.

For opening the chuck, push the button forward:



Set the screw spanner (wrench) on the axle and hold it tight. Now use the front of the second spanner to unscrew the chuck:

# Maintenance & Care



To assemble the chuck, follow the steps in reverse order. Make sure that the chuck is opened during the assembly (the handpiece button must be in forward position) and is firmly applied afterwards.

## How to clean the chuck

Soak the chuck in ethyl alcohol or a cleaning liquid for tools. Clean the slits of the chuck with the brush:



Use the brush to remove all dirt residues from the drill-hole of the chuck:



Rinse the chuck very well, and make sure you let it dry well afterwards. Cover your index finger with a very little amount (just a drop) of oil and rub in between your thumb and index finger. Dab off the oil until your fingers is only covered with a very thin film of oil. Now move the chuck in between your thumb and index finger. There should be only a very thin film of oil left on the chuck. Please act according to the saying: Less is more.

## Maintenance Overview

| What has to be done?  | How often?<br>Done by whom?                     |
|---|---|
| cleaning the chuck  | monthly by user                                 |
| changing the washer 4571  | every 50 hours by user                          |
| changing filter 3497  | every 6 months by user                          |
| maintenance by repair workshop (changing worn parts; checking housing; cleaning; check leakage current) | every 500 hours of operation by repair workshop |

# Maintenance & Care

## Upload Firmware

When you turn on the device using the main power switch (1), the version number will appear briefly on the display:

BLTOS Firmware Version: 2.00.04 compile date: Jan 1

1. Download the firmware from <http://www.hadewe.net/video-library>. Save the file on a USB stick. The file must be located in the root directory. The file name *encrypted\_bltos\_m7.bin* must not be changed.

2. Turn on the device with the main power switch (1) and plug in a USB stick.



3. Simultaneously press the + / - buttons and hold down while you switch on the device using the main power switch (1).

4. Display during the update:

```
Bootloader version: 1.00.01 compile date: May 1
SDRAM TEST...OK!
SD Card Version: Version:b004

Searching usb device... found
Copy file1:/bootloader_data/Dateiname.jpg to 0:
103 bytes written...done
```

This process takes approximately 15 minutes.



Never turn off the device during the update. Otherwise it could be damaged.

5. As soon as the last line "Please restart device" is displayed, the update is complete and you can switch the device off using the main power switch (1).

```
Bootloader version: 1.00.01 compile date: May 1
SDRAM TEST...OK!
SD Card Version: Version:b004

Searching usb device... found
Load file to memory... done

----- BOOT FILE DATA -----
HW Id: 1
FW Version: 2.0.4
CRC: 3eab

-----

Decrypt Data... done
Calculated CRC: 3eab → CRC CHECK OK!
FW update complete
Please restart device
```

6. The device can now be used again as normal.

# Handling Instructions

---



Always deposit the handpiece with the top downwards. Therefore, you can avoid liquid from entering the handpiece.



Never put the handpiece into any kind of liquid, and never oil or grease the handpiece. Clean its surface with a damp cloth. Pay attention, that no moisture or liquid enters the handpiece. Never use spray disinfection.



Never put any wet burs or instruments into the handpiece. Its moisture could damage the interior parts of the handpiece.



Any materials used by hadewe prevent a formation of rust. In cases in which a rust infestation was found within the handpiece, thorough inspections and examinations always have proved that the rust had a foreign origin (which was usually caused by the tools used in these circumstances). Even in high-grade steel instruments of well-known manufacturers, formation of rust can appear, e.g. through wrong treatment with chemical cleaning and disinfection liquids. This extraneous rust affects internal parts of the handpiece in form of rust bloom and causes pitting. Therefore, when you not working with the handpiece, always remove the bur/tool from it.



Always make sure that you do not let the handpiece fall down or exposes it to any shocks. The ball bearings and the motor could be damaged by this.



Only work with tools, which are flawless. Do not work with tools which

- are bent or out of balance
- whose shaft is worn out or
- are rusty.



Working with faulty tools will cause a stronger vibration of the handpiece. A damage of the ball bearings, clamping technique or motor could be the consequence.



Working with high pressure will not improve the outcome of your work, since the motor will even be slowed down. A second disadvantage is the stronger impact on the ball bearings and the motor, which will shorten their life span in the long run.

# Troubleshooting

---

## **Handpiece vibrates, is very noisy and/or becomes warm in the front part.**

Use of bent burs/tools. → Use a different bur/tool to test this. The bur/tool itself can be tested with the hadewe Bur Shaft Tester (art. no. 4990) to see if it is bent.

Maximum allowed speed of the tool was exceeded, which caused a stronger vibration.

→ Pay attention to the tool (e.g. bur, capper and instrument) manufacturers handling details.

## **Bur/tool can be inserted only with difficulty or not at all.**

Use of bent burs/tools. → Use a different bur/tool to test this. The bur/tool itself can be tested with the hadewe Bur Shaft Tester (art. no. 4990) to see if it is bent.

Chuck is dirty. → Clean the chuck according to the instructions in the manual.

## **Bur does not clamp or does not spin.**

Chuck is not tightened well.

→ Tighten the chuck firmly according to the instruction in the manual.

## **Knob of the handpiece cannot be moved easily.**

Chuck is dirty. → Clean the chuck according to the instructions in the manual.

Rubber under the knob is tilted.

→ Turn rubber about 90°.

## **It does not spray.**

Pressure cannot be set up in the tank, because the lid is not tightened well.

There are parts of dirt in the spray system. → Cleaning the spray system according to the instructions in the manual.

The blue water filter (art. no. 3497) in the tank is blocked.

→ Change the water filter.

## **Unit does not work at all.**

Check if the main switch of the unit is turned on at the side of the unit.

Foot switch is used constantly or faulty. → Pull out the socket of the foot switch to see if this is the cause.

Pull out the mains plug to reset the device.

## **The unit shows different sound levels at different sites of use.**

The sound level varies according to the surroundings of the unit. If you set up the unit directly in front of a wall, the sound is reflected stronger, as if it would, while standing further away from a wall.

# Troubleshooting

---

## **Handpiece motor stutters shortly (approx. 1 sec) when turning unit on.**

In very rare cases this effect did appear. It will not harm or damage the device.

## **Spray stream stutters.**

There is air in the spray system. After 5 min running, this effect will disappear.

## **Acceleration of the spray stream**

Note: To reduce the starting time of the spray, turn the spray regulator on Max. After the spray started, adjust the stream to the requested amount of water.

## **Fluid leaks out of the unit.**

Please be aware of the maximum filling level of the tank: Do not exceed the maximum level when filling the tank.

## **Memory key for speed is badly recognized when pressed for a longer time.**

You improve the recognition when

- you don't touch the screen with your hand while pressing the key,
- you don't support yourself on the unit while pressing the key.

**For descriptions of the messages on the device display see page 25.**



# Technical Details

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## 0983 Azuras PLUS

total weight: 3,2 kg  
dimension: W290xH145xD180mm  
input: 100-240 V~, 50/60 Hz  
power consumpt.: 1A(100V)-0,45A(240V)  
fuse primary:

F1, F2: 4 A delay action, fuse  
fuse Sec.: Thermal fuse  
protection class: I  
accuracy of speed display:  $\pm 10\%$

### *handpiece:*

weight: 145 g  
diameter: 17 – 22 mm  
length: 143 mm  
speed: 6000 – 40000 rpm

## Accessories & Spare Parts

### *Art. No.*

|      |                  |
|------|------------------|
| 0970 | foot switch      |
| 3497 | water filter     |
| 4571 | washer           |
| 5361 | spanner          |
| 5374 | spanner          |
| 6354 | USB stick (4 GB) |
| 8555 | AquaHy           |
| 6158 | cleaning brush   |

The clamping system is designed for rotating instruments, which have a shaft of 2,35 mm in accordance with DIN EN ISO 179-1.

## Operating Time

The device is designed for continuous operation.

## Ambient Conditions

The device is intended for use in dry closed rooms.

### Operation:

Temp.: +10°C to +26°C  
Rel. humidity: 25% to 75%  
(not condensed)  
Air pressure: 700 hPa to 1060 hPa

### Storage:

Temp: -5°C to +55°C  
Rel. humidity: 10% to 95%  
(not condensed)  
Air pressure: 500 hPa to 1060 hPa

### Transport (up to 4 weeks):

Temp: -5°C to +55°C  
Rel. humidity: 10% to 95%  
(not condensed)  
Air pressure: 500 hPa to 1060 hPa

## Declaration of Conformity

We declare under our sole responsibility, that the product podiatry unit 0983 to which this declaration relates, are conform to the following standards or normative documents:

2014/30/EU directive EMC  
2014/35/EU low voltage directive

hadewe GmbH – Grambartstraße 10  
30165 Hannover – Germany

## Safety Check

A safety check must be done in compliance with the regulations of the country where the device is used. The inspection interval is once a year.

## Disposal



The device and filter may contain infectious material such as residual sanding dust or skin particles. Therefore, please bear in mind the following disposal instructions.

### *Disposing of the device*

Old devices bought in Germany that correspond to the electronic device law should be sent directly to the manufacturer (hadewe). We will dispose of the device free of charge. The devices should not be taken to public disposal plants (WEEE Reg. No. DE20392713, b2b device). For disposal of this unit out of Germany, please contact the site where you bought this hadewe product.

## Symbols



Caution!



Important note!



Follow instructions for use!



temperature limit  
(indicates the lower and upper temperature limit)



air pressure: permissible range



air humidity: permissible range



Keep dry!



ON / OFF button (standby)  
(no disconnection from main power supply)



set spray



alternating current



direct current



safety fuse



USB port



socket foot switch



date of manufacture,  
name and address  
of the manufacture





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Grambartstraße 10  
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Germany  
[info@hadewe.de](mailto:info@hadewe.de)  
[www.hadewe.de](http://www.hadewe.de)