
New as of:

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DAC Universal

Operating Instructions

English



Dear Customer,



Thank you for purchasing a DAC Universal.

The DAC Universal cleans, lubricates and disinfects 6 instruments automatically.

DAC Universal saves you time-consuming manual reprocessing and reliably protects you, your team and your patients from cross-contamination.

These operating instructions should be of good help to you before use and can be used anytime later as reference material. Also pay attention to the safety instructions to prevent personal injury and material damage. Please follow the instructions below for care and cleaning of the DAC Universal.

We wish you success and enjoyment with DAC Universal.

Your DAC Universal team,

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1 General data

1.1 Contact information

Customer service center

For technical questions you can call our Customer Service Center at:
+49 (0)6251/16-1670

Manufacturer

Sirona Dental Systems GmbH
Fabrikstraße 31
64625 Bensheim
Germany
www.dentsplysirona.com

1.2 General notes

Keep documents safe

Always keep the operating instructions handy in case you or another user require(s) information at a later point in time. If possible, save the operating instructions on the PC or print them out.

If you sell the unit, make sure that the operating instructions 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.

Online portal for technical documents

We have set up an online portal for technical documents at www.dentsplysirona.com/manuals. There, you can download these operating instructions and further documents. Please complete the online form if you would like a hard copy of a particular document. We would be delighted to send you a printed copy, free of charge.

Help

If you reach an impasse despite having thoroughly studied the operating instructions, please contact your dental depot.

1.3 Electronic "User E-Guide"

An electronic "User E-guide" is included with the DAC Universal containing all operating instructions and important technical information.

1.4 Structure of the document

1.4.1 Identification of the 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 slight 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 for simplifying work.

1.4.2 Formats and symbols used

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

✓ Prerequisite 1. First action step 2. Second action step or ➢ Alternative action ↳ Result ➢ Individual action step	Prompts you to do something.
See "Formats and symbols used [→ 7]"	Identifies a reference to another text passage and specifies its page number.
● List	Designates a list.
"Command / menu item"	Indicates commands / menu items or quotations.

1.5 Definitions

This chapter shows examples for the use of various terms.

Operation/step	Drain the chamber, manually closing the DAC Universal Internal cleaning, disinfection
Process	Check & Clean process
Program	Disinfection program
Cycle	Start reprocessing cycle with a certain program

1.6 Warranty and liability

The manufacturer guarantees that the product delivered to you (DAC Universal) was subjected to a thorough quality test before it left the factory.

A warranty period of 12 months is given for DAC Universal starting on the day it is delivered. The warranty covers production and material defects and includes both replacement parts and working hours.

Warranty

The warranty does not cover defective products

- That were serviced by service technicians not authorized by the manufacturer
- If non-original spare parts have been used
- That have been handled improperly or have been damaged while in transit
- That have been used in a way other than described in the operating instructions
- For which the prescribed maintenance was not carried out
- That no longer function because water conductivity exceeded 9.0 µS/cm.

The manufacturer retains the right to make changes/improvements of all kinds to the product manufactured or sold by the manufacturer without being obligated to apply these changes to products that were manufactured or sold by the manufacturer before this time.

Exclusion of liability

The manufacturer assumes no liability whatsoever in cases involving:

- Service or repairs made by other persons who are not authorized by the manufacturer or dealer
- Use of the DAC Universal that does not comply with its intended use
- Use of non-original components or parts that are not included in "Accessories, consumables, spare parts, and tools [→ 131]"
- Instruments already damaged before reprocessing

1.7 Intended use

Device with Blue lid

The device is intended to clean, lubricate and thermally disinfect dental handpieces. Dental handpieces are defined as rotating instruments split up into the categories straight handpieces, contra angles and turbines.

Device with Green lid

The device is intended to clean and thermally disinfect ultrasonic handpieces.

The device is intended to clean and thermally disinfect scaler tips including their (torque) wrenches.

The device is intended to clean and thermally disinfect nozzles for multifunctional syringes.

The device is intended to clean and thermally disinfect nozzles for powder jet devices.

1.8 Contraindications

None

1.9 Scope of delivery

The following components are included in the scope of delivery of the DAC Universal:

- Blue lid without adapters
- Oil:
 - 1 bottle of NitramOil #2 lubrication concentrate
- Air:
 - Bacterial filter (including air filter and holder)
- Water:
 - Water filter
- Drain:
 - Spare part kit for the drain filter
 - Tool to change the drain filter
 - Drain hose
- Electronics:
 - Relevant international power cables
- Accessories for Check & Clean
 - Check & Clean lid
 - Check & Clean cap
 - NitraClean cleaning tablets
 - Syringe set
 - Wrench adapter
 - Tamponade to catch the oil
- All local relevant (technical) documents
 - Operating instructions
 - Operating instructions for adapters
 - Installation instructions
 - User videos
 - Declaration of conformity
 - Factory test certificate
 - Certificate of origin (for Germany)
 - Device registration and warranty
 - Device handover certificate

The adapters for the Blue lid can be freely selected and must be purchased separately. For an overview of available adapters, see the separate operating instructions for the adapters.

2 Safety instructions

IMPORTANT

This product may be operated only by trained personnel. Before operating the DAC Universal, carefully read and follow these instructions and save them for future reference. Follow all warning and safety information.

2.1 Electrostatic discharge

Protective measures

ESD stands for **ElectroStatic Discharge**.

Electrostatic discharge from people can damage electronic components when the components are touched. Damaged components usually have to be replaced. Repairs must be performed by qualified personnel.

Measures to protect against ESD include:

- Procedures to avoid electrostatic charging via
 - air conditioning
 - air humidification
 - conductive floor coverings
 - non-synthetic clothing
- discharging the electrostatic charges from your own body through contact with
 - a metallic unit casing
 - a larger metallic object
 - any other metal part grounded with the protective earth
- Wearing an antistatic band that creates a connection between the body and a protective ground wire.

Areas at risk are indicated on the unit with the ESD warning label:

We recommend that all persons working with this system are made aware of the significance of the ESD warning label. A training course should also be held to inform users about the physics of electrostatic charges.



Physics of electrostatic charges

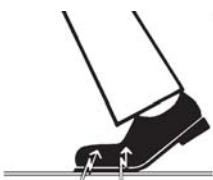
An electrostatic discharge requires prior electrostatic charging.

There is a danger of electrostatic charges building up whenever two bodies rub against each other, e.g. when:

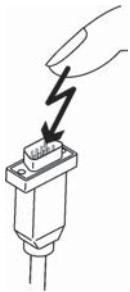
- walking (soles of shoes against the floor) or
- moving (chair casters against floor).

The amount of charge depends on several factors. The charge is:

- higher at low air humidity than at high air humidity, and
- higher with synthetic materials than with natural materials (clothing, floor coverings).



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 over 10 amps. They are not hazardous for humans because they last for only several nanoseconds.

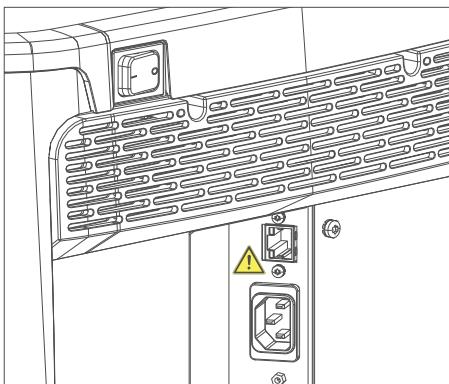
Note: nanosecond = 1/1,000,000,000 second = 1 billionth of a second

Voltage differentials exceeding 30,000 volts per centimeter may lead to a charge transfer (electrostatic discharge, lightning, spark-over).

Integrated circuits (logical circuits and microprocessors) are used in order to implement a wide variety of functions in a device. 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. Integrated circuits that are connected to wires leading externally are therefore particularly at risk from electrostatic discharge.

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

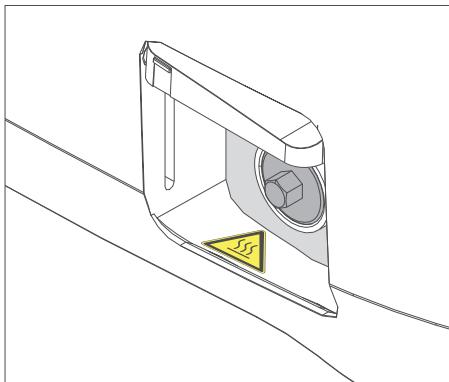
2.2 Caution symbols on the device



Meaning: Warning of danger

This symbol is found on the back of the DAC Universal next to:

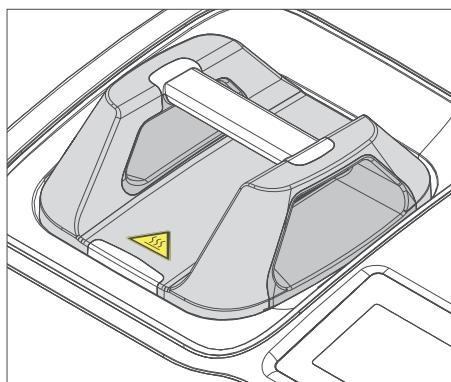
- the RS232 interface and the LAN interface: External computer hardware that is connected to this serial interface must be labeled "The connected device must comply with the UL 1950 and IEC/EN 60950 standards and must be connected only to safety extra low voltage (SELV) circuits."



Meaning: Warning of a hot surface

This symbol is found:

- next to the drain filter on the front of the device



- on the lids

2.3 Flammable materials

WARNING

Risk of explosion!

Never use the DAC Universal in the presence of flammable anesthetics or gases.

WARNING

Risk of explosion!

Do not hold the NitramOil #2 bottles near an open flame.

2.4 Reducing the risk of burns

CAUTION

Risk of burns!

The bottom plate of the DAC Universal can be hot.

CAUTION

Risk of burns!

Never hold your head directly over the DAC Universal when it opens, as steam may emerge from the device.

CAUTION

Risk of burns!

Even when the lid of the DAC Universal is partly or completely open, the instruments are still hot. Allow the instruments that become very hot during the process to cool down.

CAUTION

Risk of burns!

The metal part of the lid is very hot. Always touch only the plastic part of the lid.

CAUTION

Risk of burns!

The drain hose, filter housing, drain filter and drain tank are very hot during the reprocessing cycle. Switch the DAC Universal off and let it cool down (about 15 minutes) before emptying and cleaning the drain tank or cleaning or replacing the drain filter.

CAUTION

Risk of burns!

Note that the temperature of the drain water is hot (approx. 100 °C).

CAUTION

Risk of burns!

The drain tank may contain hot water. Make sure that you do not tip it over.

2.5 Instruction of practice personnel

IMPORTANT

The personnel responsible for operation and maintenance of the DAC Universal must be instructed in the safe operation of the DAC Universal by a service technician trained by the manufacturer. After the initial instruction by the service technician, a person in the practice must be appointed as responsible for the assistance and instruction of personnel who operate and maintain the DAC Universal.

2.6 Installation site

⚠ CAUTION

Risk of crushing

The overall height of the open DAC UNIVERSAL is 53 cm. The recommended minimum height for installing the DAC Universal is 70 cm, in order to prevent injuries when removing the lid and hitting any hanging cabinets.

⚠ WARNING

Risk of contamination!

We recommend that the compressed air supply that is connected to the DAC Universal complies with the standard ISO 7494-2.

2.7 Maintenance

⚠ CAUTION

Please observe the regulations applicable in your country when handling the drain tank and drain filter.

The manufacturer recommends that you wear your personal protective gear when handling the drain tank and drain filter.

⚠ WARNING

Risk of contamination!

If you move the DAC Universal, ensure that the drain hose does not bend as this may lead to the contamination of your workroom.

2.8 Magnets

⚠ WARNING

Magnets!

Magnets are integrated in the lids, the front flap of the water tank and the flap on the drain filter. These should not be placed directly on the body in order to exclude any interference with e.g. pacemakers.

2.9 FCC and IC compliance

Any changes or modifications that have not been expressly approved by the manufacturer may invalidate the user's right to operate the device.

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

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

FCC Interference Statement (Part 15.105 (b)):

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

- (1) This device may not 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.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

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

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique 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;
- (2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

3 Product description

3.1 Functions

The DAC Universal automatically clean, lubricates and disinfects 6 dental handpieces / rotating transmission instruments in approx. 15 minutes. After, the dental handpieces are immediately ready for use.

The dental instruments reprocessable on the Blue lid include the following:

- Straight and contra-angle handpieces
- Turbines

The number and placement of the different adapters is optional.

The Green lid is available as an option for the cleaning and disinfection of a maximum of 6 unwrapped instruments (Green lid instruments).

The instruments reprocessable on the Green lid include the following:

- Dental ultrasonic handpieces
- Dental scaler tips including their (torque) wrenches
- Nozzles for multifunctional syringes
- Nozzles for powder jet devices

The number and placement of the different adapters is optional.

Exception: The Green lid can reprocess a maximum of 3 dental scaler tips simultaneously, which cannot be placed next to one another.

3.1.1 Functions with the Blue lid



The dental handpieces are reprocessed as follows using the adapters on the Blue lid.

1. Pre-cleaning -> the external cleaning removes heavy dirt
2. Internal cleaning of the spray channels -> water is forced through the spray channels of the instruments using compressed air and are therefore cleaned.
3. Internal cleaning of the drive channels -> water is forced through the drive channels of the instruments using compressed air and are therefore cleaned.
4. Lubrication
5. Main external cleaning
6. Preheating
7. Heating up to disinfection temperature
8. Back-flush through the spray channels -> Saturated steam is forced into the chamber and then extracted back through the spray channels of the instruments.
9. Back-flush through the drive channels -> Saturated steam is forced into the chamber and then extracted back through the drive channels of the instruments.
10. Compensation time
11. Holding time (disinfection)

12. Pressure relief -> Pressure, steam and condensate are released from the chamber
13. Cooling

3.1.2 Functions with the Green lid

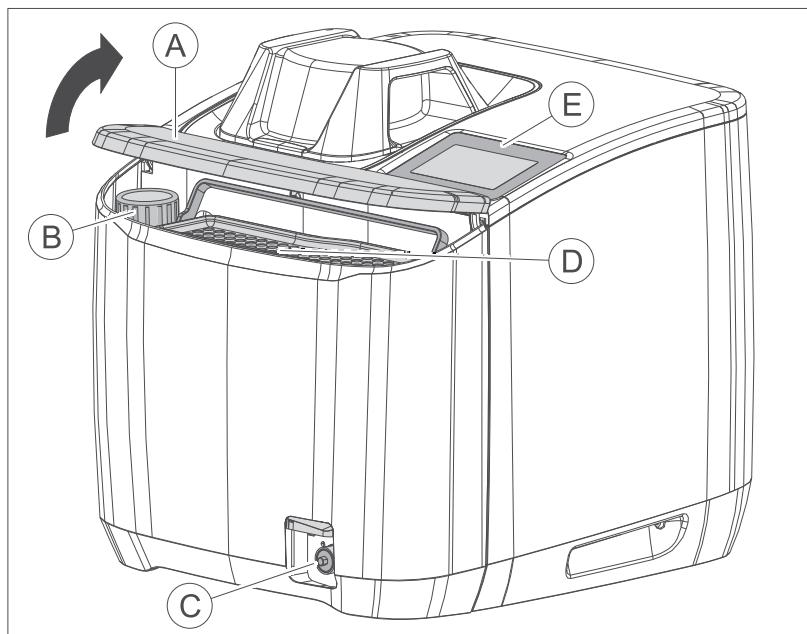
The unwrapped Green lid instruments are reprocessed as follows using the appropriate adapters on the Green lid.



1. Pre-cleaning -> the external cleaning removes heavy dirt
2. Leak check
3. Internal cleaning of the spray channels -> water is forced through the spray channels of the instruments using compressed air and are therefore cleaned.
4. Main external cleaning
5. Preheating
6. Heating up to disinfection temperature
7. Back-flush through the spray channels -> Saturated steam is forced into the chamber and then extracted back through the spray channels of the instruments.
8. Compensation time
9. Holding time (disinfection)
10. Pressure relief -> Pressure, steam and condensate are released from the chamber
11. Cooling

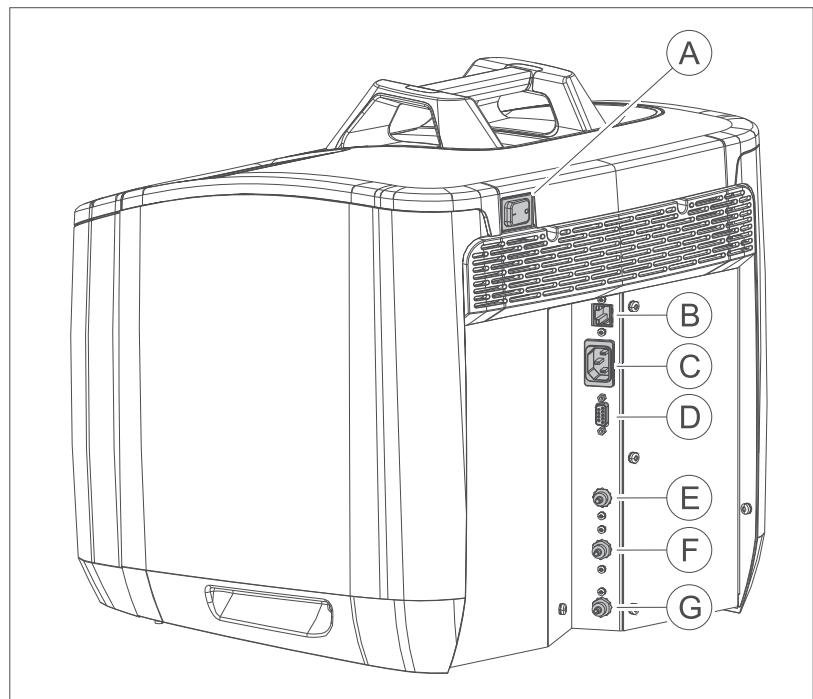
3.2 Controls and functional elements of the DAC UNIVERSAL

3.2.1 Front of the device



A	Front flap
B	Oil bottle
C	Drain filter and filter housing
D	Water tank
E	Display and touch panel

3.2.2 Back of unit



A	Main switch
B	LAN interface
C	Power supply connection
D	Standard interface RS232
E	Water connection
F	Compressed air connection
G	Drain connection

3.2.3 Lid

The following lids can be used for reprocessing in the DAC Universal:

- Blue lid for reprocessing unwrapped dental handpieces.
See "Functions with the Blue lid [→ 18]" for functions and see "Reprocessing with the Blue lid [→ 70]" for instructions.
The maximum load on the Blue lid is 6 instruments.



	Blue lid
Water consumption for cleaning	approx. 650 ml
Water consumption for disinfection	approx. 150 ml
Holding time	30 s
Holding temperature	134 °C
A0-value	>3000

- Green lid for reprocessing unwrapped Green lid instruments.
See "Functions with the Green lid [→ 19]" for functions and see "Reprocessing with the Green lid [→ 73]" for instructions.
The maximum load on the Green lid is 6 instruments.



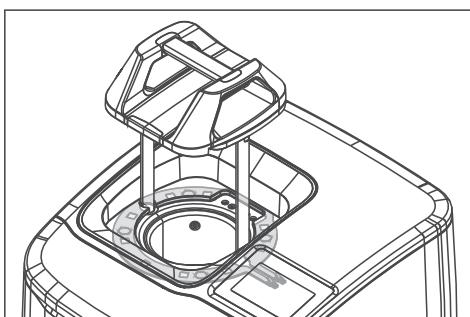
	Green lid
Water consumption for cleaning	approx. 500 ml
Water consumption for disinfection	approx. 150 ml
Holding time	30 s
Holding temperature	134 °C
A0-value	>3000

3.2.4 Display and touch panel



See chapter "Operation of the touch panel [→ 29]" for more information about the DAC Universal display and menu.

3.2.5 Safety ring

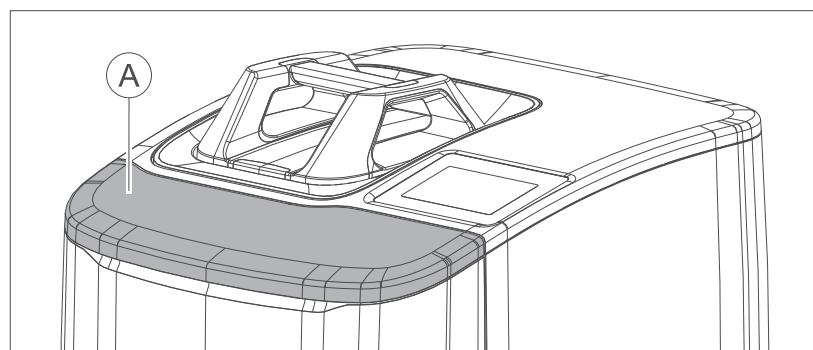


The DAC Universal is equipped with a safety ring. This prevents the user from pinching their fingers when closing the lid.

If there is an object between the chamber and the lid when the lid closes, the cycle is stopped immediately. The lid is then lifted, moves up fully and a message is displayed.

To remedy the message, see "Errors / Display messages [→ 109]"

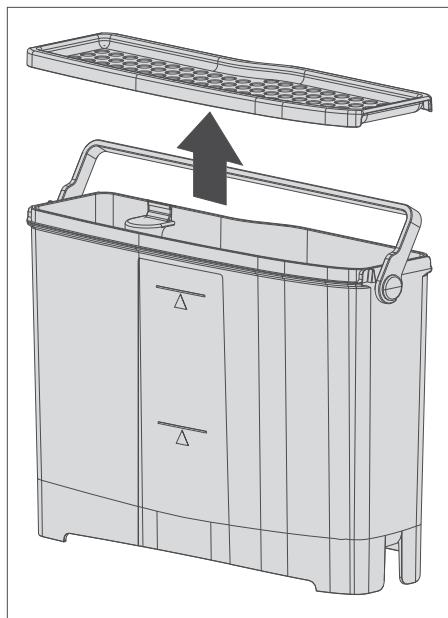
3.2.6 Front flap



The front flap (A) is located on the front of the DAC Universal. When this is opened, the water tank and NitramOil#2 oil bottle can be seen.

The front flap must always be closed before a reprocessing cycle is started. If it is open, the display will show an error message that must be rectified.

3.2.7 Water tank



If no permanent water connection is selected, the integrated water tank must be filled regularly with water manually, as all functions (e.g. cleaning) of the DAC Universal are performed with demineralized or distilled water.

The water tank must be cleaned regularly - weekly or every 50 cycles (whichever comes first), see "Disassemble and clean the water tank [→ 90]".

IMPORTANT

The water tank must be in the DAC Universal when using an automated water connection.

NOTE

Only demineralized or distilled water may be used in the DAC Universal.

Tap water may contain limestone, which damages both the instruments and the DAC Universal.

Water conductivity should be < 3.0 µS/cm. If the value is > 9.0 µS/cm, an error message appears and the cycle stops because it can no longer be guaranteed that the cycle is safe.

A full water tank is enough for at least 2 cycles for the disinfection program.

Capacity of the water tank: 2 liters / 0.53 imperial gallons.

Minimum filling of the water tank: 1 liter / 0.26 imperial gallons for the disinfection program at 134 °C (273 °F).

NOTE

Remove the water tank from the DAC Universal before filling it up. This prevents water from spilling into the inside of the DAC Universal housing.

NOTE

Check whether the water tank filter is correctly assembled on the bottom of the water tank.

3.2.8 NitramOil #2 lubrication concentrate



The NitramOil #2 lubrication concentrate is used to lubricate the transmission channels and the rotor of the instruments, and is not screwed into the device upon delivery.

The bottle must be screwed in before the first use of the DAC Universal.

NitramOil #2 is approved by leading international instrument manufacturers.

One bottle of NitramOil #2 is enough for lubricating approx. 200 cycles (corresponding to approx. 1200 straight, contra-angle, or highspeed handpieces).

The lubrication concentrate comes in a no-pressure bottle.

(Safety) information for the lubrication concentrate

NOTE

Too much oil, e.g. from manually adding lubrication, may result in overlubrication of the instrument.

NOTE

Use only NitramOil #2 for the DAC Universal.

IMPORTANT

In case of fire: There is maximum 200 ml / 0.043 imperial gallons of oil in the DAC Universal. There is no danger that dangerous or harmful gases can develop in case of fire.

NOTE

The oil must be stored and handled at temperatures below 50 °C (122 °F). Follow all warnings on the handling, use, and disposal of the oil. This information is in the safety data sheet. The safety data sheet for NitramOil #2 is available at www.dentsplysirona.com.

IMPORTANT

No toxic, harmful, or dangerous gases arise during the handling, use, or removal of NitramOil #2. The oil is pumped directly from the bottle into the DAC Universal.

3.2.9 Error LED



The DAC Universal is equipped with an LED.

This will flash if there is a process error. An alarm sounds at the same time.

3.3 Programs

The DAC Universal automatically recognizes which lid has been inserted into the DAC Universal.

A reprocessing cycle in the DAC Universal is counted once the "Start" function key is pressed. It also counts if an error appears or the cycle is discontinued while the lid is being closed.

Program for Blue lid

Temperature	max. temperature	Absolute pressure (in bar)	Disinfection time	Total cycle duration*	Program
134 °C	137 °C	3.2 bar	30 sec.	approx. 15 min	Disinfection program

* with factory settings

Program for Green lid

Temperature	max. temperature	Absolute pressure (in bar)	Disinfection time	Total cycle duration*	Program
134 °C	137 °C	3.2 bar	30 sec.	approx. 14 minutes	Disinfection program

* with factory settings

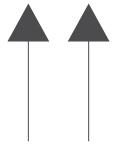
3.4 Technical data

Manufacturer:	Sirona Dental Systems GmbH
Model:	DAC Universal
Dimensions (H/W/D):	Opened: 59 cm / 40 cm / 42 cm Closed with Blue lid: 40 cm / 40 cm / 42 cm
Materials:	Plastic, stainless steel
Weight: (net without packaging)	26 kg / 57 pounds
Weight (gross with packaging and accessories):	34 kg / 75 pounds
Noise:	< 65 dBA
Power supply:	100-127 VAC / 200-240 VAC
Frequency:	50 Hz / 60 Hz
Nominal current:	120 / 230 VAC: 11 A / 6 A
Fluctuations in electrical supply	+/- 10 % of nominal voltage
Transient overvoltage	Installation category II
Power consumption	1.3 kW
Electric class:	I
Protection type (IP class):	21B
Type:	Not applicable
Type BF applied part:	Not applicable
Safety class:	Never use the DAC Universal in the presence of flammable anesthetics or gases.
Cycle length:	approx. 15 – 30 minutes
Operating conditions:	Temperature: 16 °C - 30 °C (61 °F - 86 °F) No operation over 2000 m
Relative humidity	up to 80%
Air pollution level (ISO 8573-1:2010)	≤ 2
Maximum loss of heat at a surrounding temperature of approximate 23 °C (73 °F)	about 500 W for the whole device about 250 W for the front.
Total chamber volume	< 2 liters
Design pressure in the chamber	3.5 bar relative
Maximum allowable working pressure in the chamber	3.5 bar relative
Maximum allowable working temperature in the chamber	138 °C (280 °F)
Usable space in the chamber	Height: Approximate 16 cm, Diameter: Approximate 11 cm
Transport and storage conditions:	Temperature: 10 °C - 40 °C (50 °F - 104 °F) Relative humidity: 30 % - 95 % Air pressure: 700 hPa - 1,060 hPa

	This product complies with Medical Device Directive 93/42/EEC, including all amendments.
	The DAC Universal complies with the requirements of the RoHS Directive 2011/65/EU.

Symbols on the DAC Universal packaging/external carton

This way up



Protect from moisture



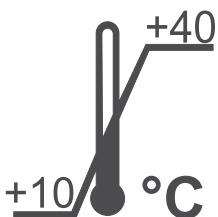
Handle with care



Use no hooks



Temperature limit: 10 °C to +40 °C



Stack limit, do not stack more than 2 devices on top of each other



4 Operation

4.1 Operation of the touch panel

4.1.1 Operating structure / menu guidance

4.1.1.1 Virtual function keys

The touch panel displays virtual function keys according to the screen selected. Required functions can be activated by touching the function keys with your finger.

Key (background) color

Dark gray: General activatable function



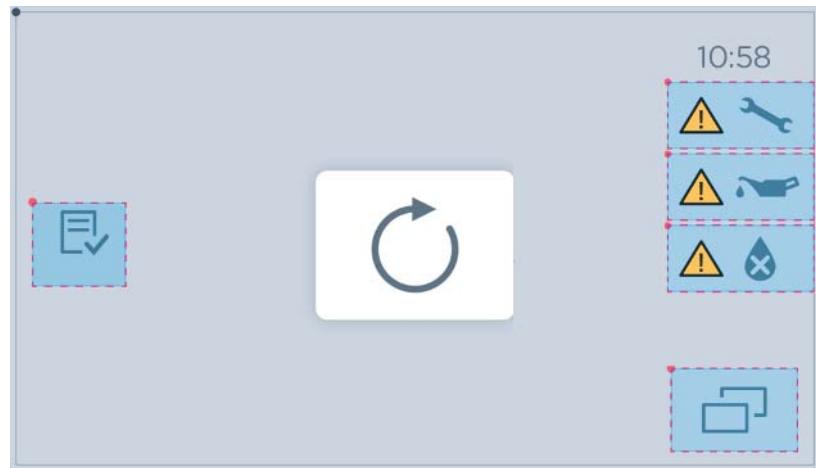
Grayed out: Function cannot be activated



Orange: Active / selected function



4.1.1.2 Structure of the start screen



From the start screen, you can

- Start a cycle (in the middle) using the "Start" function key



- Adjust the settings in the sub-screen with the "Sub-screen" function key: The start screen only displays function keys for the important functions. The "Sub-screen" leads to additional setting options.



- If necessary, start Check & Clean (in the center to the left) with the "Check & Clean 50" or "Check & Clean 200" function keys, see Cleaning and Maintenance maintenance



The *Back* function key closes the opened sub-screen immediately.



4.1.2 Symbols

4.1.2.1 Navigation symbols

This chapter describes the symbols used to navigate in the DAC Universal.

	Return to the start screen
	Show sub-screen
	Cancel a process

	Enter / confirm
	Delete
	Navigate up
	Navigate up (deactivated)
	Navigate back
	Navigate down
	Navigate down (deactivated)

Check & Clean navigation

	Navigate to the next step
	Navigate to the previous step
	Navigate to the next Check & Clean chapter

	Navigate back to the previous Check & Clean chapter
	Cancel a process
	Enter / confirm
	Start the Check & Clean function (e.g. check water flow)
	Stop

4.1.2.2 Menu symbols

This chapter describes the symbols that appear as menu symbols on the DAC Universal.

They are presented and explained in the same order as the menu.

Manual control

	Manual control
	Manual: Open
	Manual: Close
	Manual: Drain the chamber
	Manual: Remove bad water
	Manual: Remove bad water, not possible

Settings

	Settings
---	----------

	Settings: Date / time
	Settings: Time
12 h	Settings: Time, 12 h
24h	Settings: Time, 24 h
am	Settings: Time, am
pm	Settings: Time, pm
	Edit
31	Settings: Date
D.M.Y	Settings: Date, day / month / year

	Settings: Display brightness
	Settings: Increase display brightness
	Settings: Reduce display brightness
	Printer
	Reprint
	Languages
	Select sterilization time / holding time, function not active, The sterilization function is not possible with the current device configuration.
	Settings: Service technician
	Settings: Oil quantity

	Settings: Oil expel
	Settings: Automatic supply of demineralized water
	Settings: Automatic supply of demineralized water, off
	Settings: Automatic supply of demineralized water, on
	Settings: LAN
	Settings: Service software
	Settings: Service software, off
	Settings: Service software, on

History

	History
	History: Programs

	History: Service
	History: Error messages
	History: Check & Clean
	List, 50 cycles
	List, 200 cycles

Information

	Information
---	-------------

Check & Clean

	Check & Clean (maintenance)
	List, 50 cycles
	List, 200 cycles

4.1.2.3 Process symbols

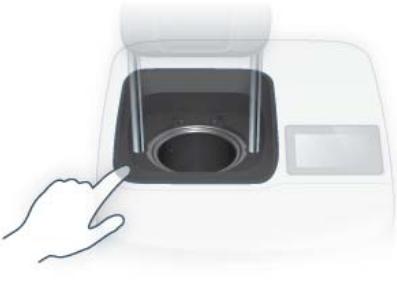
This chapter describes the symbols that describe the processes in the DAC Universal.

	Start process
	Process: Open chamber
	Blue lid process
	Green lid process

Process status symbols

	Lid closes
	Lid completely closed

	Preheat (at the start of the day)
	Temperature in the chamber is increasing
	Temperature stable
	Temperature in the chamber is dropping
	The lid opens slightly at the end of the process

	Lid is open
	Slide the lid in the holder
	Drain the chamber - manual
	Safety ring is pressed - as part of Check & Clean

Process status symbols for the Blue lid

	Reprocessing of dental handpieces on the Blue lid
	Internal cleaning of dental handpieces on the Blue lid
	Lubrication of dental handpieces on the Blue lid
	External cleaning of dental handpieces on the Blue lid
	Back-flush of dental handpieces on the Blue lid

Process status symbols for the Green lid

	Reprocessing of Green lid instruments on the Green lid
	Internal cleaning of Green lid instruments on the Green lid
	External cleaning of Green lid instruments on the Green lid
	Back-flush of Green lid instruments on the Green lid

4.1.2.4 Notice symbols for cleaning and maintenance

This chapter describes the symbols that only appear when the DAC Universal needs cleaning or maintenance.

	Navigation on the homescreen
	Check & Clean
	Cleaning and maintenance

4.1.2.5 Error symbols

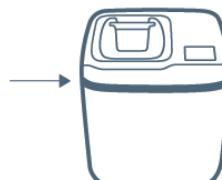
4.1.2.5.1 Pop-up symbols

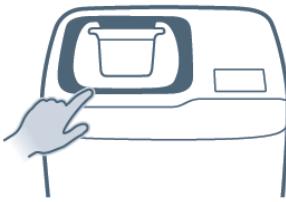
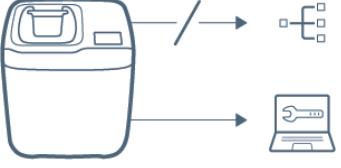
This chapter describes the symbols that appear as menu symbols on the DAC Universal as a pop-up message.

General pop-ups

	Error
	Cancel
	Warning
	Confirm

User pop-ups

	Cancel cycle
	Insufficient air pressure
	Water tank not inserted
	Water quality inadequate
	Front flap is not closed

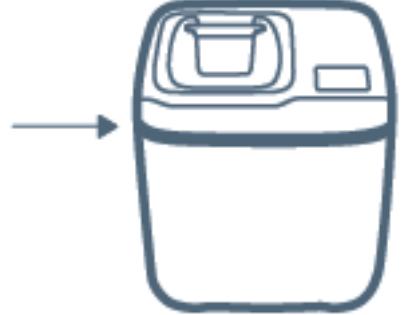
	Trigger safety ring
	Service, contact authorized dealer
	Disconnect from the network Connect service software
	Service, read operating instructions Service, contact authorized dealer

Initialization pop-ups

	Blue lid
	Green lid

4.1.2.5.2 Error symbols

This chapter describes the symbols that appear on the DAC Universal as error messages.

	Service, call authorized dealer
	Front flap is not closed
	Insufficient air pressure
	No water

	Water tank not inserted
	Water quality inadequate

4.1.2.5.3 Warning symbols

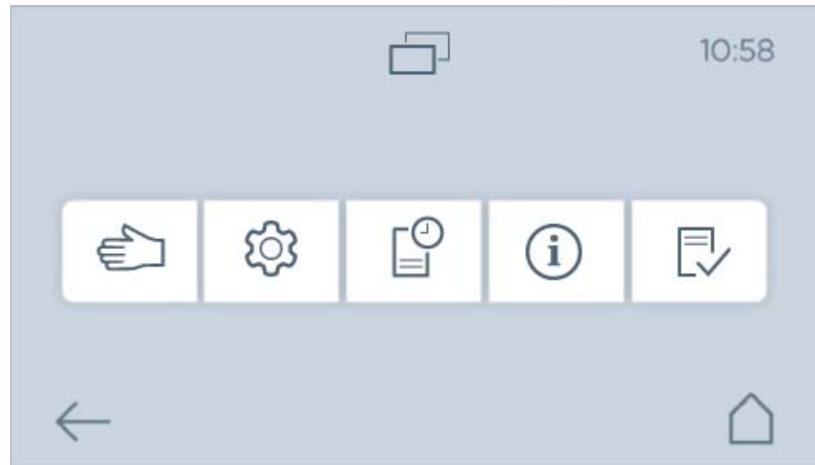
This chapter describes the symbols that appear on the DAC Universal as warning messages.

	Warning, call service
	Warning, not enough oil
	Warning, poor water quality

4.1.3 Menu options

This chapter described which menu options the DAC Universal shows.

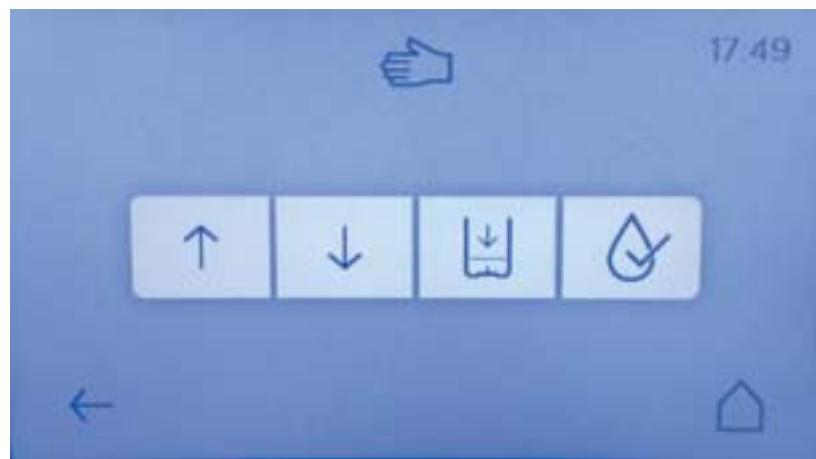
The DAC Universal screen is divided up into 5 sub-screens (from left to right) as follows:



- Manual control
- Settings
- History
- Information
- Check & Clean

4.1.3.1 Manual control

The settings screen is divided up into 4 sub-screens (from left to right) as follows:



- Manual: Open



- Manual: Close



- Manual: Drain the chamber



- Manual: Check water quality



4.1.3.1.1 Manual: Open

Pressing the "Manual: Open" function key manually opens the DAC Universal.



4.1.3.1.2 Manual: Close

Pressing the "Manual: Close" function key manually closes the DAC Universal.



4.1.3.1.3 Manual: Drain the chamber



Pressing the "Manual: Drain the chamber" function key manually drains the DAC Universal.

Select this function if there is residual water in the chamber that needs to be removed.

To do so, a lid must be inserted into the DAC Universal.

About 60 seconds after starting this operation the lid will reopen.

The chamber should then be empty. If not, the operation can be repeated.

4.1.3.1.4 Manual: Remove bad water



The function is only important for users who fill the water tank manually and do not have an automatic water connection.

The "Manual: Remove bad water" function key is grayed out if the water quality is still good enough.



The "Manual: Remove poor water" function key is activated and can be selected only when the warning message "Poor water quality" (value > 9.0 $\mu\text{S}/\text{cm}$) appears on the homescreen.

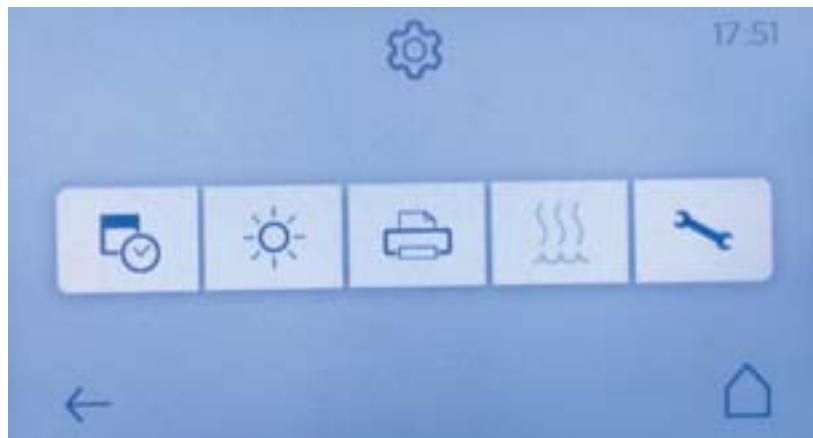
First, the water tank should be emptied and filled up with demineralized or distilled water.

Pressing the "Manual: Remove bad water" function key pumps the bad water out of the DAC Universal. This process may have to be repeated if the "Manual: Remove bad water" function key is still active and the water quality is still poor.

As soon as the water quality is better, the "Manual: Remove bad water" function key is deactivated.

If there is still some water in the chamber, the chamber should be emptied manually, see "Manual: Drain the chamber [→ 50]".

4.1.3.2 Settings



The settings screen is divided up into 5 sub-screens (from left to right) as follows:

- Date and time



- Display brightness



- Printer



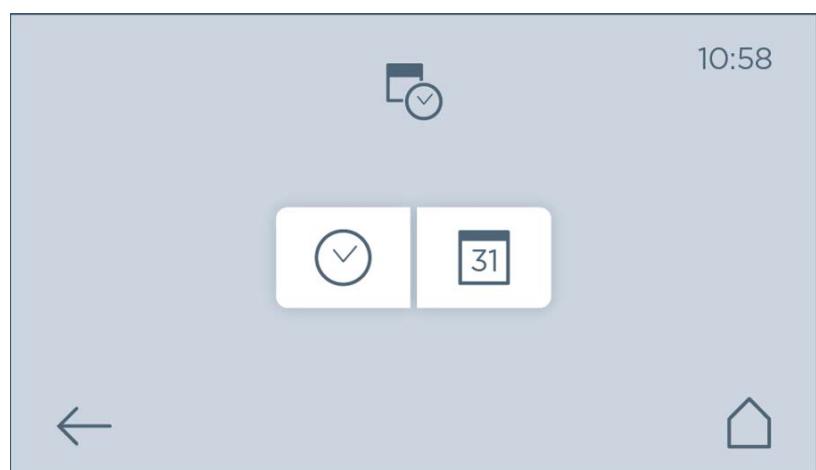
- Select sterilization time / holding time, function not active, the sterilization function is not possible with the current device configuration.



- Technician settings



4.1.3.2.1 Date and time

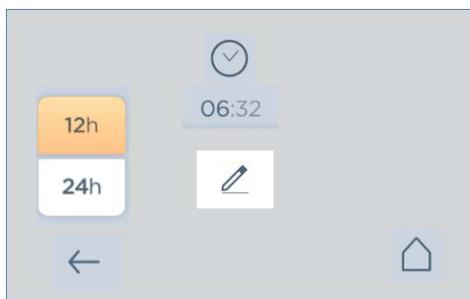


By pressing the "Date and time" function key you can set the time and the date.



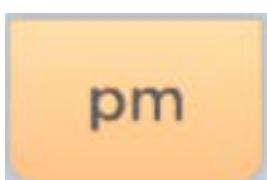
Setting the time

1. By pressing the "Time" function key, you access the time settings.



12 h

2. Select the desired display by pressing the "12h / 24h" function keys.



3. By pressing the "Edit" function key, you can enter the time.

4. Select the desired time by pressing the numbers. The previous time is automatically overwritten. You can only enter numbers that are possible for time input.

5. Select the desired display by touching the "am / pm" function keys.



6. Confirm the time by pressing the "Confirm" function key.

7. In order to navigate back to the homescreen, you can either press the "Back" or the "Homescreen" function key.

↳ The time is set.



Setting the date



1. By pressing the "Date" function key, you access the date settings.



2. By pressing the "Edit" function key, you can enter the date.



3. Select the date (year/month/day) by pressing the numbers. The previous date is automatically overwritten.



4. Confirm the time by pressing the "Confirm" function key.



5. You can change the date display by pressing the "Day/month/year" function key.

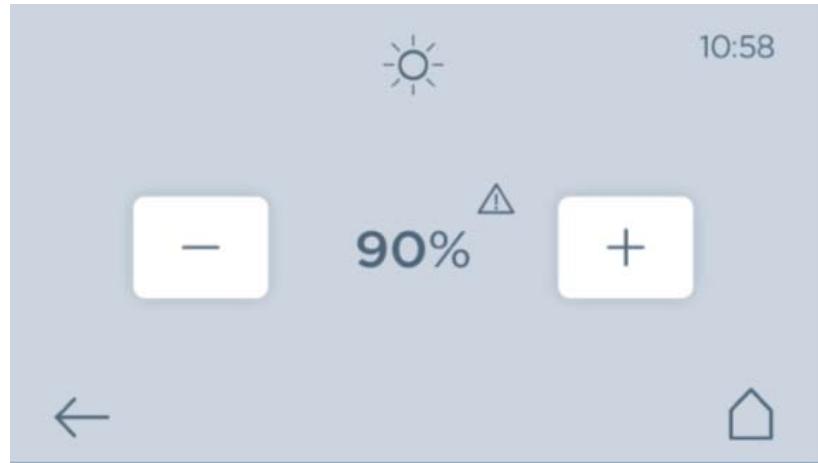


6. In order to navigate back to the homescreen, you can either press the "Back" or the "Homescreen" function key.

→ The date is set.



4.1.3.2.2 Display brightness



By pressing the "Display brightness" function key, you can change the brightness of the display.

The brightness is adjustable in 10% steps, from 30 – 100%.

The default settings for the display brightness is 30%.

We recommend a maximum display brightness of 60% for a new DAC Universal. If the brightness is more than 60%, a warning symbol appears stating that setting the display brightness higher can prematurely age the display.

If you have an older DAC Universal with a deteriorating display brightness, you can set the display brightness to more than 60% to compensate for this.

If the display is no longer readable even when the brightness settings are adjusted to 100%, please contact your authorized dealer.

To adjust the display's brightness:

1. Select the required brightness by pressing the "Plus" or "Minus" function key.
2. Confirm your choice by pressing the "Back" function key.



4.1.3.2.3 Printer



The printer screen is divided up into 2 sub-screens (from left to right) as follows:

- Reprint



- Printer language settings



Reprint

Printout logs can be prepared for the last 40 reprocessing cycles by pressing the "Reprint" function key. The last reprocessing cycle is shown at the top of the list.

The "Navigate: Up" and the "Navigate: Down" function keys allow you to select another reprocessing cycle.

A table showing a reprint log with five entries. The columns are: Number (1-5), Time (0.5 min), Date (various dates from 2014 to 2015), and a small icon. The fourth entry is highlighted with a dashed red box. Navigation arrows are on the left and right sides of the table, and a house icon is at the bottom right.

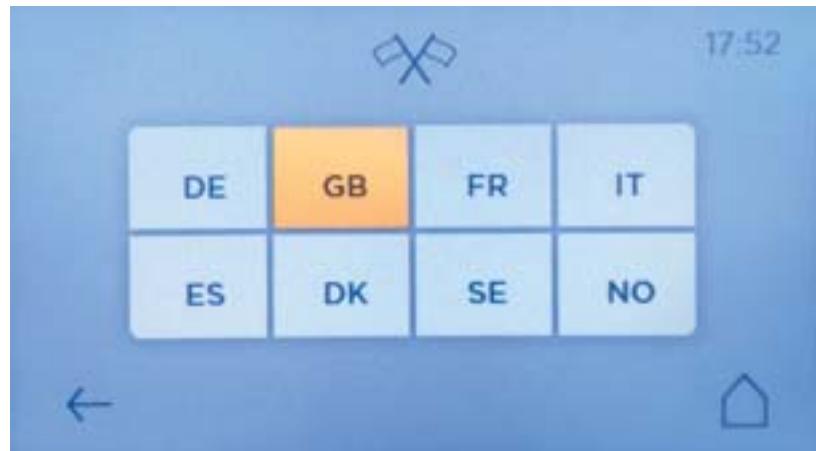
The list contains the following information for each of the 40 reprocessing cycles:

- Cycle number
- Cycle type (color for each lid / Check & Clean symbol)
- Holding time / no information
- Cycle date

To print out a reprocessing cycle, press the "*Printer*" function key on the left of the selected cycle.



Printer language settings



The "*Printer language settings*" function key can be used to set the language of the printer log. See "RS-232 interface [→ 76]" for details of the procedure.

The default setting for the printer language is English (GB).



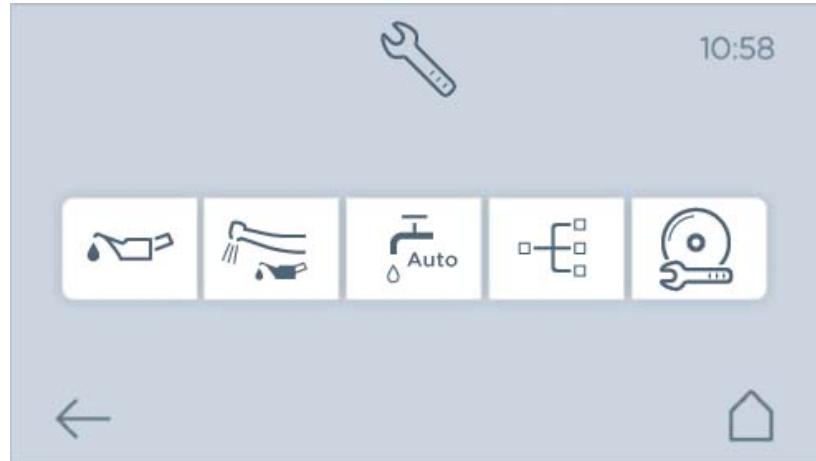
4.1.3.2.4 Sterilization time / holding time



If the "*Sterilization time*" function key is grayed out, it is not active and the sterilization time cannot be adjusted.

The sterilization function is not possible with the current device configuration.

4.1.3.2.5 Technician settings



The technician settings screen is divided up into 5 sub-screens (from left to right) as follows:

- Settings: Oil



- Settings: Oil expel



- Settings: Automatic supply of demineralized/distilled water



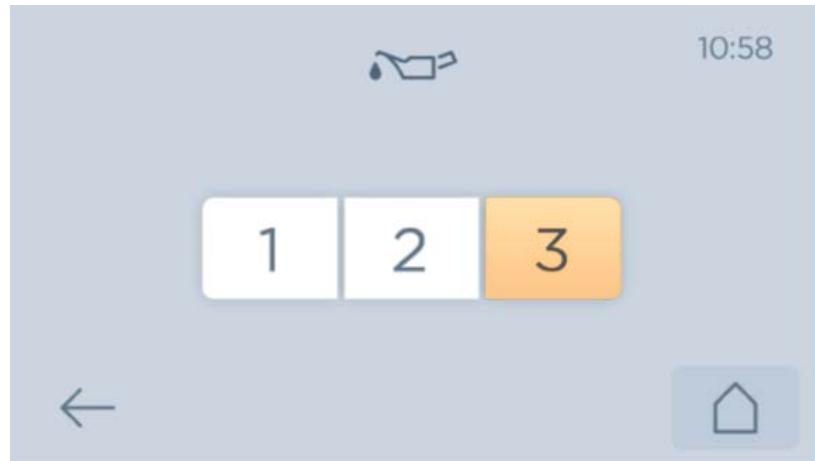
- Settings: LAN



- Service software settings



Oil quantity settings



By clicking the "*Settings: Oil quantity*" function key, you can set the level of the oil quantity. There are 3 levels that can be selected by clicking on the respective function key. Confirmation is not required.

The default setting for the oil quantity is level 1.



Settings: Oil expel

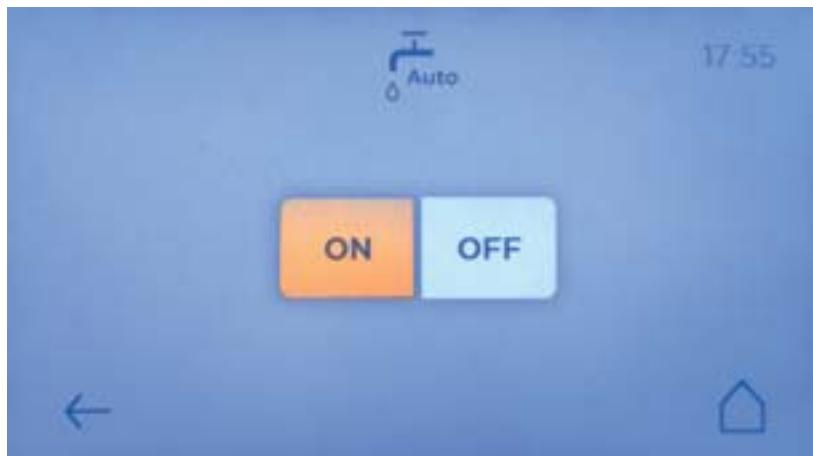


By pressing the "*Settings: Oil expel*" function key, you can set the level for the oil expel duration. There are 5 levels that can be selected by clicking on the respective function key. Confirmation is not required.

The default setting for oil expel is level 1.



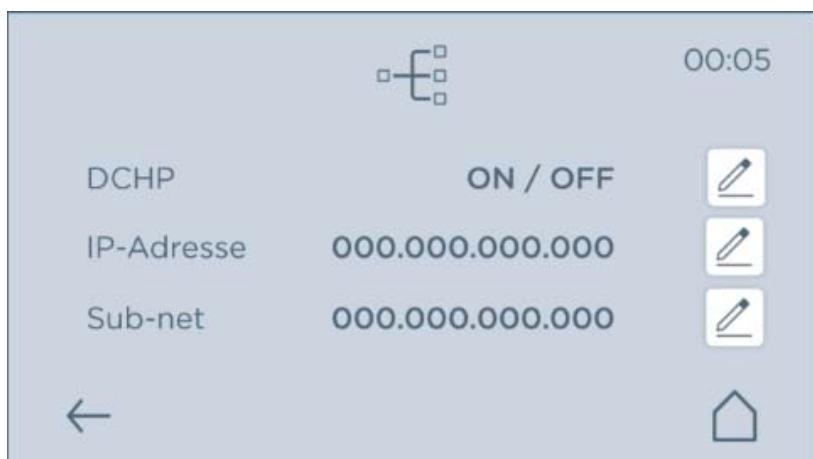
Settings: Automatic supply of demineralized water



By pressing the "Settings: Automatic water" function key, you can switch the automatic supply of demineralized water on or off by pressing the "ON" or "OFF" function key. Confirmation is not necessary.

The default setting for the automatic supply of demineralized water is "OFF".

Settings: LAN



Click on the "Settings: LAN" function key to access the network settings.

The DAC Universal supports 2 network settings:

- Manual IP address setting
- Automatic assignment of IP address by a DHCP server in the network

If you do not know which settings are correct for your practice network, please contact your network administrator.

Manual IP address

In order to manually set the IP address, the DHCP function must be set to "OFF".

OFF

The following values are set as default settings for the IP address on the device:

- IP: 192.168.100.10
- Sub-net: 255.255.255.0

These values can be changed if needed. To do so, press the "*Edit*" function key next to the numbers.



ON

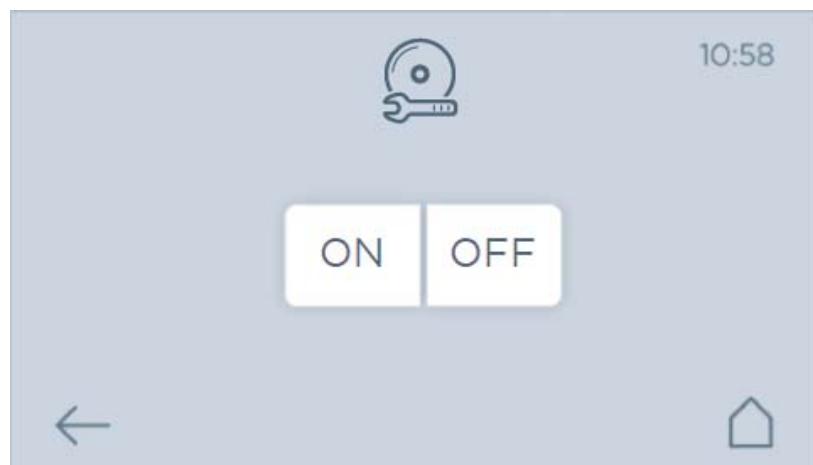
Please note that the numbers will be overwritten from left to right when entering the figures. The device only accepts numbers that are generally possible for an IP address. After, the entered address is confirmed with the "*Confirm*" function key.

Automatic IP address (DHCP)

In order to have an IP address automatically assigned by the DHCP server in the network, the "*DHCP*" must be "*ON*".

Once the DAC Universal has received an address from the DHCP server, the IP address and subnet address are shown in gray. This is for purely informational purposes as this address cannot be changed by the DAC Universal.

Settings: Service software



OFF

ON

By pressing the "*Settings: Service software*" function key, a connection is established or disconnected between the service software and the DAC Universal by pressing the "*ON*" or "*OFF*" function key.

The default settings is "*OFF*". This means that no data can be exchanged between the service software and the DAC Universal.

If you press the "*ON*" function key, a pop-up message appears that asks you to establish the connection. Data can now be exchanged between the service software and the DAC Universal.

4.1.3.3 History

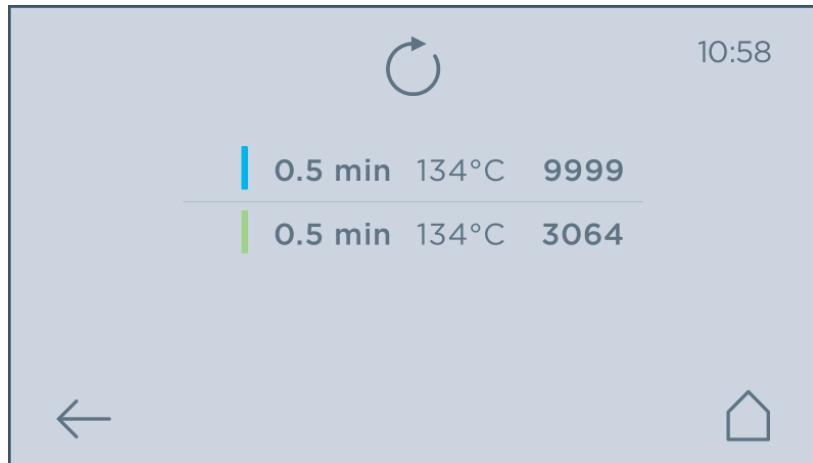


The history screen is divided up into 4 sub-screens (from left to right) as follows:

- History: Programs
- History: Service
- History: Error messages
- History: Check & Clean



4.1.3.3.1 Program history



Pressing the "History: Program" function key displays the number of reprocessing cycles already performed per type of lid.

The sequence and lid programs are as follows (from top to bottom):

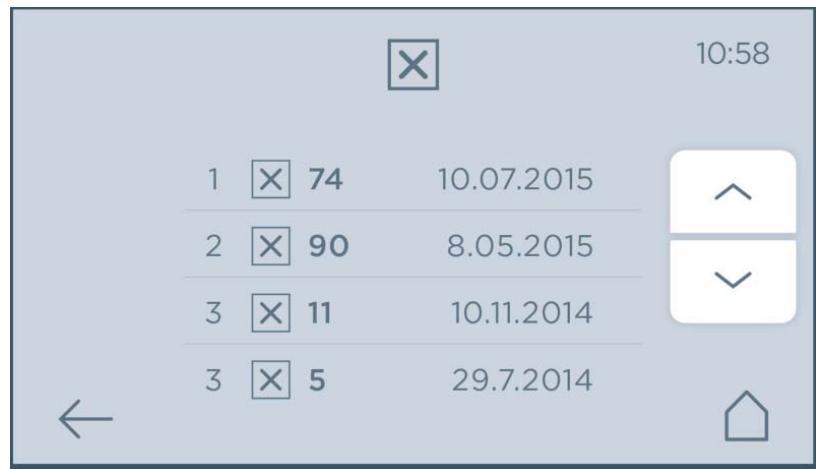
- Blue lid: 0.5 minutes, 134 °C, number of cycles
- Green lid: 0.5 minutes, 134 °C, number of cycles

4.1.3.3.2 Service history



Pressing the "History: Service" function key displays how many cycles to go until the next service is due and the date of the next service (whichever occurs first).

4.1.3.3.3 Error message history



Pressing the "History: Error messages" function key displays the last 99 error messages.

The display shows the error message number and the date.

Warning messages are not displayed in the history.

Pressing the "Navigate: Up" or the "Navigate: Down" displays the other error messages.



4.1.3.3.4 Check & Clean history

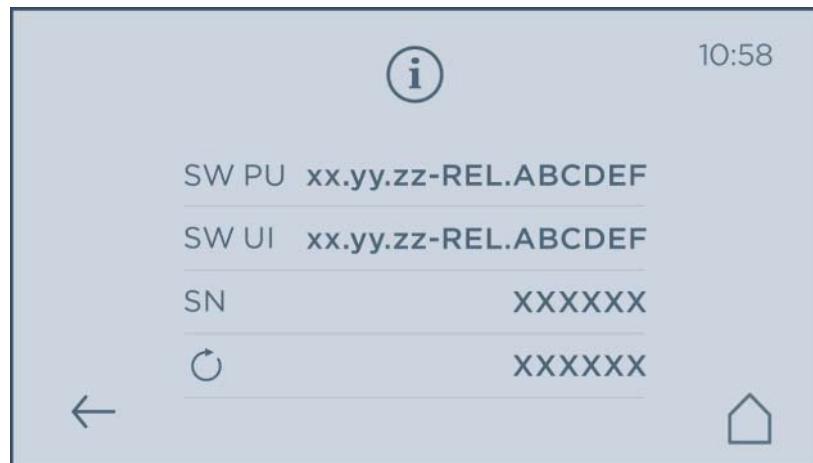


Pressing the "*History: Check & Clean*" function key displays the date of the last Check & Clean processes (for 50 / 200 cycles).



A Check & Clean process is considered completed and appears as an entry in the history if the last step of the Check & Clean process appears on the display and a no-load operation was performed.

4.1.3.4 Information



By pressing the "Information" function key, you can see the information about your DAC Universal.

The following information is listed from top to bottom:

- Software version (SW PU: xx.yy.zz-REL.ABCDEF)
- Software version (SW IU: xx.yy.zz-REL.ABCDEF)
- Device serial number (SN: xxxxxx)
- Number of device cycles (xxxxxx)

4.1.3.5 Check & Clean



By pressing the "*Check & Clean*" function key, you can manually start the Check & Clean process.



This sub-screen can only be accessed if it is active. Otherwise the function key is grayed out and inactive.

See the Cleaning and Maintenance chapter in "Check & Clean process [→ 81]" for more information on the Check & Clean process.

4.1.3.6 Default settings

The default settings are predetermined by the manufacturer:

Program	134 °C / 273 °C, min. disinfection (disinfection program)
Language:	UK
Oil expel:	1
Oil quantity:	1
Automatic water supply:	OFF
Service software connection:	OFF
Display brightness:	30 %

4.2 Reprocessing with the DAC UNIVERSAL

4.2.1 Switching on, off and heating up the device

Switching on the device

As soon as the DAC Universal has been switched on at the main switch on the back of the device, the steam generator begins to heat up.

The heating phase of the DAC Universal takes approx. 10-12 minutes.

IMPORTANT

A reprocessing cycle can be started during the heating phase.



During the heating phase, the display shows the homescreen of the DAC Universal.

If a process is started although the heating phase has not finished, this is shown with the image on the left. If the heating phase is complete, the reprocessing cycle is performed directly after.

IMPORTANT

Do not start the DAC Universal without a lid inserted into the DAC Universal holder.

Switching off the device

The manufacturer recommends switching off the DAC Universal at night at the main switch on the back.

4.2.2 Filling the water tank

NOTE

Remove the water tank from the DAC Universal before filling it up. This prevents water from spilling into the inside of the DAC Universal housing.

IMPORTANT

The water tank can be removed at any time and without any problems as long as no reprocessing cycle is running. If a process is running, an error message will appear if the water tank is removed.

Removing the water tank / filling the water tank / reinserting the water tank

- ✓ The DAC Universal is switched on and cooled down.
- ✓ Demineralized / distilled water (water conductivity < 3.0 µS/cm) is available.

1. Open the front flap of the DAC Universal.
2. Remove the water tank by carefully pulling the water tank up and out of the DAC Universal by the handle.
3. Place the water tank on a flat surface.
4. Remove the lid of the water tank.
5. Fill demineralized/distilled water (water conductivity < 3.0 µS/cm) into the water tank (min. 1.0 liter, max. 2 liter).
6. Put the lid back on the water tank.
7. Insert the water tank back into the DAC Universal.

IMPORTANT

When inserting the tank, ensure that the guide hooks are inserted correctly into the housing at the top on the back of the device.

4.2.3 Removing the drain tank

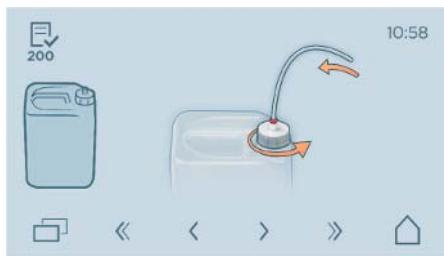
Frequency: As soon as it is full

⚠ WARNING

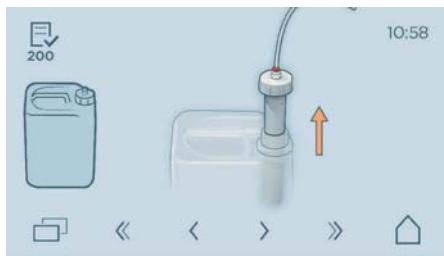
Risk of contamination!

Do not start a cycle if the DAC Universal is not connected to the drain tank or a siphon.

- ✓ The DAC Universal is switched off and cooled down.
- ✓ The drain tank is cooled down.
- ✓ You are wearing your protective gear.



1. Unscrew the lid of the drain tank.



2. Remove the condensation tube.



3. Empty the drain tank. Dispose of the waste water according to the national guidelines and the applicable regulations for waste disposal.



4. Fill the drain tank with tap water.



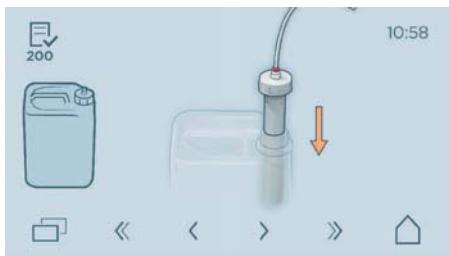
5. Rinse the drain tank thoroughly with water.



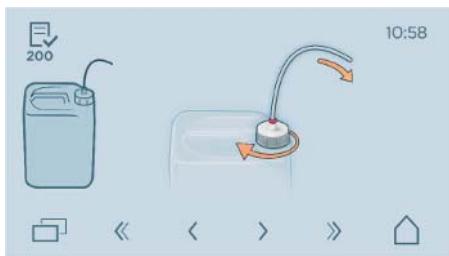
6. Empty the drain tank completely.
7. Soak a soft cloth in water and wring it out well. Use the cloth to clean the exterior of the drain tank and the condensation tube.



8. Fill the clean drain tank with water up to the lowest mark on the label.
9. Add isopropyl alcohol (alcohol $\geq 70\%$) up to the second mark on the label. This prevents the growth of bacteria in the drain tank.



10. Replace the condensation tube.



11. Screw down the lid again.
12. Place the drain tank no more than 3 m from the DAC Universal and at a lower height.

☞ The drain tank is cleaned and emptied.

4.2.4 Pre- and post-reprocessing of instruments

IMPORTANT

Please follow the regulations and guidelines applicable in your country in your practice.

IMPORTANT

Please follow the instrument manufacturer's instructions when handling the instruments.
(Reprocessing instructions according to DIN EN ISO 17664)

NOTE

The chuck of the rotating instruments must be lubricated regularly according to the requirements of the instrument manufacturer.

IMPORTANT

Reprocess immediately, or at the latest, one hour after treatment.

1. Purge the water and air channels on the treatment center for 30 seconds.
2. Predisinfect the instruments directly at the treatment center.
3. Transport the instrument to the hygiene room in a suitable transport container.

4.2.5 Reprocessing with the Blue lid



The Blue lid is used for reprocessing unwrapped rotating transmission instruments.

Tip: If there are many instruments to be reprocessed or to ensure the instruments will be available again quickly, we recommend using a second Blue lid.

WARNING

Risk of contamination!

After a reprocessing cycle is canceled, the instruments are not reprocessed and cross-contamination can occur. Please reprocess the instruments again.

4.2.5.1 Start cycle with the Blue lid

Preparation

- ✓ All settings of the DAC Universal were preset according to "Regular activities".
- ✓ The DAC Universal is switched on and ready for operation.
- ✓ The maximum number of 6 instruments are ready for reprocessing.
- ✓ The Blue lid is available and cooled down.

1. Remove the Blue lid from the holder on the DAC Universal by pulling it straight out.
2. Place the Blue lid on the counter or put it in the lid holder.
3. Plug each instrument onto the corresponding adapter in the Blue lid. For more information on attaching the instruments or changing the adapters, see the separate operating instructions for adapters.
4. Turn the Blue lid so that the instruments are pointing down. The blue side of the lid faces you.
5. Place the Blue lid at the front of the DAC Universal holder and insert the Blue lid straight in the holder.

CAUTION

Risk of crushing!

Make sure that your fingers do not get caught between the lid and the holder.

NOTE

Make sure that the lid is inserted all the way into the holder so that the instrument heads do not touch the wall of the chamber. Make sure there are no objects in the chamber. The DAC Universal, the lid and/or the instruments can be damaged if a lid is not inserted correctly.

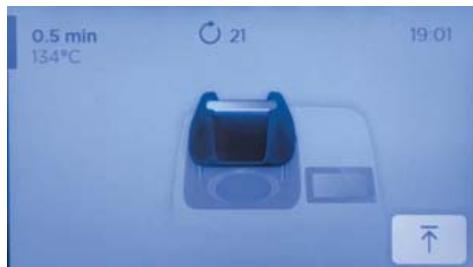
CAUTION

Risk of heat!

When you take items out of the chamber, remember that the chamber and these items can be very hot.

- ↳ There are instruments on the Blue lid; the DAC Universal is still open and ready for a reprocessing cycle.

Reprocessing



1. Press the "Start" function key to start the cycle.

- ↳ The Blue lid of the DAC Universal closes, the DAC Universal detects the lid and selects the correct program.
- ↳ The DAC Universal automatically runs the cleaning, lubrication and disinfection cycle.
- ↳ The display shows at any time which phase the DAC Universal is in, see section "Process symbols [→ 38]".

- ↳ When the selected cycle is completed the display will indicate as seen on the picture.
- ↳ The lid moves a little out of the chamber. This indicates that a cycle has been completed and the instruments have been disinfected.

CAUTION

Risk of burns!

Never hold your head directly over the DAC Universal when it opens, as steam may emerge from the device.

WARNING

Risk of contamination!

After completion of the cycle, make sure that all instruments are still properly attached to the adapters. If instruments have fallen into the chamber during the cycle or if an instrument is no longer properly attached after the end of a cycle, cleaning and disinfection have failed. In this case, reprocessing of the instruments must be repeated.

2. Press the "Confirm" function key.

- ↳ The Blue lid will open completely.



CAUTION

Risk of crushing!

Make sure that your fingers do not get caught between the opening lid and an object, such as any wall cabinets that may be above.

Check

- ✓ The Blue lid is open completely.

CAUTION

Risk of burns!

Even when the Blue lid is partly or completely open, the instruments are still hot. Allow the extremely hot instruments to cool down after the process.

CAUTION

Risk of burns!

The metal part of the lid is very hot. Always touch only the plastic part of the lid.

1. Remove the Blue lid from the holder on the DAC Universal at the end of the cycle to allow the instruments to cool down faster.
2. Turn the Blue lid so that the instruments are pointing up.
3. Place the Blue lid on the counter or put it in the lid holder.

IMPORTANT

Please follow the instrument manufacturer's instructions when handling the instruments.

(Reprocessing instructions according to DIN EN ISO 17664)

4. Check the instruments visually to make sure they are dry.
5. Check the instruments visually to make sure they have been cleaned.
6. Read the cycle number above next to the completed cycle symbol.
7. Check on your documentation (printer, software, etc.) that the cycle was conducted properly: "Disinfection, time, ok".
 - ↳ If everything is correct, reprocessing was successful.
8. Document the cycle according to the work instructions applicable in your practice.
9. Remove all the instruments from the Blue lid when the lid and the instruments have cooled down sufficiently. See the separate operating instructions for adapters for detailed instructions on how to remove the instruments from the individual adapters.
 - ↳ The instruments can now be used again.



4.2.6 Reprocessing with the Green lid



The Green lid is used to clean and thermally disinfect the Green lid instruments.

Tip: If there are many instruments to be reprocessed or to ensure the instruments will be available again quickly, we recommend using a second Green lid.

WARNING

Risk of contamination!

After a reprocessing cycle is canceled, the instruments are not reprocessed and cross-contamination can occur. Please reprocess the instruments again.

4.2.6.1 Start cycle with the Green lid

Preparation

- ✓ All settings of the DAC Universal were preset according to "Regular activities".
- ✓ The DAC Universal is switched on and ready for operation.
- ✓ The maximum number of 6 instruments are ready for reprocessing (for loading, see "Functions [→ 18]").
- ✓ The Green lid is available and cooled down.

1. Remove the Green lid from the holder on the DAC Universal by pulling it straight out.
2. Place the Green lid on the counter or put it in the lid holder.
3. Plug each instrument or screw each tip onto the corresponding adapter on the Green lid. For more information on attaching the instruments or changing the adapters, see the separate operating instructions for adapters.
4. Turn the Green lid so that the instruments are pointing down. The green side of the lid faces you.
5. Place the Green lid at the front of the DAC Universal holder and insert the Green lid straight in the holder.

CAUTION

Risk of crushing!

Make sure that your fingers do not get caught between the lid and the holder.

NOTE

Make sure that the lid is inserted all the way into the holder so that the instrument heads do not touch the wall of the chamber. Make sure there are no objects in the chamber. The DAC Universal, the lid and/or the instruments can be damaged if a lid is not inserted correctly.

CAUTION

Risk of heat!

When you take items out of the chamber, remember that the chamber and these items can be very hot.

- ⚠ There are instruments on the Green lid; the DAC Universal is still open and ready for a cycle.

Reprocessing



1. Press the "Start" function key to start the cycle.

- ⚠ The Green lid of the DAC Universal closes, the DAC Universal detects the lid and selects the right program.
- ⚠ The DAC Universal automatically runs the cleaning and disinfection cycle.
- ⚠ The display shows at any time which phase the DAC Universal is in, see section "Process symbols [→ 38]".
- ⚠ When the selected cycle is completed, the display will indicate as seen on the picture.
- ⚠ The lid moves a little out of the chamber. This indicates that a cycle has been completed and the instruments have been reprocessed.

CAUTION

Risk of burns!

Never hold your head directly over the DAC Universal when it opens, as steam may emerge from the device.

WARNING

Risk of contamination!

After completion of the cycle, make sure that all instruments are still properly attached to the adapters. If instruments have fallen into the chamber during the cycle or if an instrument is no longer properly attached after the end of a cycle, cleaning and disinfection have failed. In this case, reprocessing of the instruments must be repeated.

2. Press the "Confirm" function key.

- ⚠ The Green lid will open completely.

CAUTION

Risk of crushing!

Make sure that your fingers do not get caught between the opening lid and an object, such as any wall cabinets that may be above.

Check

- ✓ The Green lid is open completely.

CAUTION

Risk of burns!

Even when the Green lid is partly or completely open, the instruments are still hot. Allow the extremely hot instruments to cool down after the process.

CAUTION

Risk of burns!

The metal part of the lid is very hot. Always touch only the plastic part of the lid.

1. Remove the Green lid from the holder on the DAC Universal at the end of the cycle to allow the instruments to cool down faster.
2. Turn the Green lid so that the instruments are pointing up.
3. Place the Green lid on the counter or put it in the lid holder.

IMPORTANT

Please follow the instrument manufacturer's instructions when handling the instruments.
(Reprocessing instructions according to DIN EN ISO 17664)

4. Check the instruments visually to make sure they are dry.
5. Check the instruments visually to make sure they have been cleaned.
6. Read the cycle number above next to the completed cycle symbol.
7. Check on your documentation (printer, software, etc.) that the cycle was conducted properly: "Disinfection, time, ok".
 - ↳ If everything is correct, reprocessing was successful.
8. Document the cycle according to the work instructions applicable in your practice.
9. Remove all the instruments from the Green lid when the lid and the instruments have cooled down sufficiently. See the separate operating instructions for adapters for detailed instructions on removing the individual adapters.
 - ↳ The instruments can now be used again.



4.2.7 Process documentation

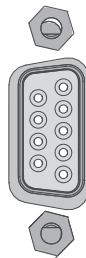
NOTE

The data interfaces may only be connected to devices with fused circuits.

The DAC Universal can be connected to transmit process checks as follows:

- RS232 interface
- LAN interface

4.2.7.1 RS-232 interface



A thermoprinter can be connected to the RS-232 interface for batch documentation. This is available as an option and prints out the logs of performed reprocessing cycles. The reprocessing cycles performed can be immediately reviewed on the printout.



The languages available on the printout / transfer data are:

- German
- English
- French
- Italian
- Spanish
- Danish
- Swedish
- Norwegian

These can be selected when installing the documentation device.

4.2.7.1.1 Connecting the printer / setting the language

To connect a documentation device to the DAC Universal, please proceed as follows:

- ✓ The DAC Universal is switched on.
- 1. Connect the documentation device to the serial interface RS 232 of the DAC Universal using a serial cable.
↳ The printer is connected.
- 2. Press the "Menu" function key from the homescreen.



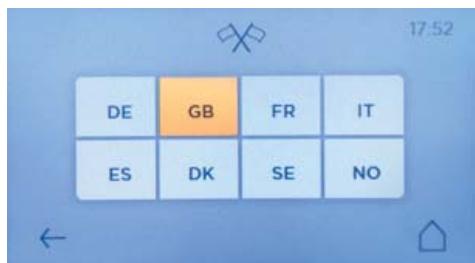
- 3. Press the "Settings" function key.



- 4. Press the "Printer" function key.



5. Press the "Languages" function key.



5. Press the "Languages" function key.
6. Press the function key of the language that you would like to select.
 - An overview with the languages available for selection appears.
 - The selected language is highlighted yellow.



7. Leave the menu by pressing the "Back" function key several times or by pressing the "Homescreen" function key.
 - The documentation device is connected and the printout language is set.



4.2.7.1.2 Output information of the printer

The process data will be sent to the receiving unit immediately during the process. The complete previous cycle data will be stored internally in the DAC Universal.

Output information of the Blue lid:

DAC Universal MK4	
Date(YYYY-MM-DD)	2000-01-01
Time (24h)	00:04:00
Device serial	999999
Process Software	00.01.02
C&C 50 status	Due
C&C 200 status	OK
Service status	OK
Cycle	000001
Lid type	Blue
Lid serial	999999
Program	Disinfection
<hr/>	
Phase:	Time: Res:
Lid detected	00:04:00 OK
External flush	00:04:00 FAIL
Process end	00:04:00 FAIL
Confirmation	00:04:00 FAIL
Cycle end	00:04:00 FAIL
<hr/>	
Disinfection	FAIL
Error code	0102

The following information is given by the printer:

- Date (YYYY-MM-DD)
- Time (24h) (HH:MM:SS)
- Serial number of the DAC Universal - [Device serial]
- Process SW
- Status for pending Check & Clean after 50 cycles - [C&C 50 status (Due / OK)]
- Status for pending Check & Clean after 200 cycles - [C&C 200 status (Due / OK)]
- Service status
- Cycle
- Lid type
- Lid serial
- Program
- -----
- The start time of each phase and the result "OK" or "FAIL" is printed.
The phases are:
 - Lid detected
 - External flush
 - Leakage test
 - Internal cleaning
 - External cleaning
 - External rinse
 - Heating
 - Back-flush
 - Start holding time
- -----
- During the disinfection process, temperature and pressure are measured and printed out every 30 seconds.
- Interim values (time / temperature / pressure)
- Interim values (time / temperature / pressure)
- Maximum: °C / bar
- Minimum: °C / bar
- Duration (mm:ss)
- -----
- The start time of each phase and the result "OK" or "FAIL" is printed.
The phases are:

The rest of the phases and the result "OK" or "FAIL" is printed. The phases are:

- End holding time
- Cooling
- Process end
- Confirmation
- Cycle end

The rest of the phases and the result "OK" or "FAIL" is printed. The phases are:

- Disinfection
- Error code

If "FAIL" is displayed for a phase, then the reprocessing cycle was unsuccessful and must be repeated.

Output information of the Green lid:

The following information is shown on the printer:

```

DAC Universal MK4
Date (YYYY-MM-DD) 2000-08-28
Time (24h) 01:15:32
Device serial 999999
Process SW 00.01.02
C&C 50 status Due
C&C 200 status OK
Service status OK
Cycle 999999
Lid type Green
Lid serial 999999
Program Disinfection
-----
Phase: Time: Res:
Lid detected 01:16:03 OK
External flush 01:16:31 OK
Leakage test 01:16:54 OK
Internal wash 01:17:35 OK
External wash 01:19:04 OK
External rinse 01:19:30 OK
Heating 01:21:19 OK
Back flush 01:21:24 OK
Start holding time 01:21:34 OK
-----
Time: °C: bar:
01:21:34 136.1 3.17
01:22:04 136.3 3.16
Maximum 136.3 3.20
Minimum 136.0 3.14
Duration (mm-ss) 00-30
-----
End holding time 01:22:04 OK
Cooling 01:22:55 FAIL
Process end 01:22:55 FAIL
Confirmation 01:22:55 FAIL
Cycle end 01:22:55 FAIL
-----
Disinfection FAIL
Error code 0102

```

- Date (YYYY-MM-DD)
- Time (24h) (HH:MM:SS)
- Serial number of the DAC Universal - [Device serial]
- Process SW
- Status for pending Check & Clean after 50 cycles - [C&C 50 status (Due / OK)]
- Status for pending Check & Clean after 200 cycles - [C&C 200 status (Due / OK)]
- Service status
- Cycle
- Lid type
- Lid serial
- Program
- -----
- The start time of each phase and the result "OK" or "FAIL" is printed.

The phases are:

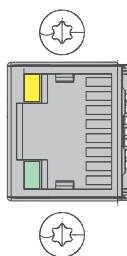
- Lid detected
- External flush
- Leakage test
- Internal cleaning
- External cleaning
- External rinse
- Heating
- Back-flush
- Start holding time

- -----
- During the disinfection process, temperature and pressure are measured and printed out every 30 seconds.
- Interim values (time / temperature / pressure)

- Interim values (time / temperature / pressure)
- Maximum: °C / bar
- Minimum: °C / bar
- Duration (mm-ss)
- -----
- The start time of each phase and the result "OK" or "FAIL" is printed.
The phases are:
The rest of the phases and the result "OK" or "FAIL" is printed. The phases are:
 - End holding time
 - Cooling
 - Process end
 - Confirmation
 - Cycle end
- -----
- The rest of the phases and the result "OK" or "FAIL" is printed. The phases are:
 - Disinfection
 - Error code

If "FAIL" is displayed for a phase, then the reprocessing cycle was unsuccessful and must be repeated.

4.2.7.2 LAN interface



A router for documentation software (such as the Dentsply Sirona Hub or the DIOS software) can be connected to the LAN interface for batch documentation.

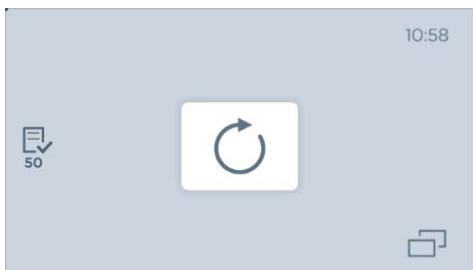
Contact your authorized dealer to purchase the sterilization software.

4.2.8 Activities during longer downtimes

If the DAC Universal has not been used for more than two days, perform a cycle with the Blue lid without any instruments.

5 Cleaning, maintenance and validation

5.1 Check & Clean process



After every 50 cycles, the DAC Universal display will indicate as shown on the left. This message reminds the user that the weekly Check & Clean cleaning / maintenance is due.

The second table below shows how often cleaning/maintenance should be carried out. The numbers at the far left of the table correspond with the subsections in this chapter.

The frequencies indicated are based on approx. 10 complete cycles per day. If the DAC Universal is used more frequently, you should adjust the Check & Clean intervals accordingly.

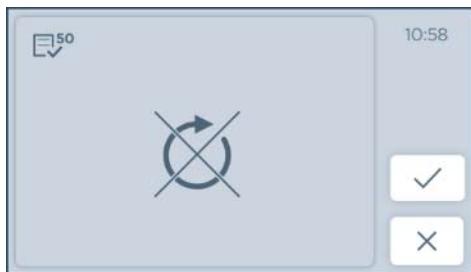
The software will take you through the individual Check & Clean steps.

The menu guidance in the Check & Clean process is as follows:

	Navigate to the next step
	Navigate to the previous step
	Navigate to the next Check & Clean chapter
	Navigate back to the previous Check & Clean chapter
	Cancel a process
	Enter / confirm

	Start the Check & Clean function (e.g. check water flow)
	Stop

You can interrupt or cancel the Check & Clean process by pressing the "Cancel" function key.



You can then confirm the cancellation or return to the Check & Clean process.

A Check & Clean process is considered completed and appears as an entry in the history if the last step of the Check & Clean process appears on the display.

Overview of tasks to be carried out

Task	Frequency			
	Weekly or every 50 cycles*	Every 4 weeks or every 200 cycles	Every 3rd month	Every 2 years or every 3000 cycles
1. Start Check & Clean	✓			
2. Put on gloves	✓			
3.D Insert Check & Clean lid	✓			
4.D Check the safety ring	✓			
5.D Check the Check & Clean lid	✓			
6.D Check the oil supply via the Check & Clean lid	✓			
7.D Check the water supply via the Check & Clean lid	✓			
8.D Check the water supply to the chamber	✓			
9.D Open the chamber / remove the Check & Clean lid	✓			
10. Check the water supply for all Blue and Green lids / remove the water tank	✓			
11. Disassemble and clean the water tank	✓			
12. Clean the drain filter	✓			
13. Replace the drain filter / O-rings on the drain filter		✓		

Task	Frequency			
	Weekly or every 50 cycles*	Every 4 weeks or every 200 cycles	Every 3rd month	Every 2 years or every 3000 cycles
14. Clean the drain tank	✓			
15. Check the assembly of the adapter	✓			
16. Check O-rings on the adapters	✓			
17. Change the O-rings on the adapters			✓	
18. Clean the housing of the unit / the lid and the chamber	✓			
19. Check the O-ring on the water tank	✓			
20. Assemble / fill and insert the water tank	✓			
21. Preparations (after the Check & Clean)	✓			
22. Service by qualified technician				✓

* according to the Check & Clean plan

5.1.1 Start Check & Clean

- ✓ The DAC Universal is switched on and cooled down.
- Start the Check & Clean process.

The Check & Clean process can be started by either pressing

- the "*Check & Clean 50*" function key



- the "*Check & Clean 200*" function key



on the homescreen (if active) or via the sub-screen by pressing the function key.



The Check & Clean process can be interrupted with pop-up messages. The "*Check & Clean not possible*" function key appears on the display. Rectify this error to start the Check & Clean process.



5.1.2 Put on gloves

Frequency: Weekly or every 50 cycles (whichever comes first).

For your own protection, put on gloves before you start the Check & Clean process.



5.1.3 Insert Check & Clean lid

Frequency: Weekly or every 50 cycles (whichever comes first).

- ✓ The DAC Universal is switched on and is in the Check & Clean process menu.
- ✓ The Check & Clean lid is available.
- 1. Go to the next Check & Clean option by pressing the "*Next Check & Clean step*" function key.



2. Or go a step further in this Check & Clean option by pressing the "*Navigate to next step*" function key.

NOTE

Make sure that the lid is inserted all the way into the holder.

NOTE

Make sure there are no objects in the chamber.

5.1.4 Check the safety ring

Frequency: Weekly or every 50 cycles (whichever comes first).

This function must be checked to ensure that the safety ring works and the Check & Clean process can be started.

- ✓ The DAC Universal is switched on and is in the Check & Clean process menu.
- ✓ The Check & Clean lid is correctly inserted into the holder.
- 1. Go a step further in this Check & Clean option by pressing the "*Navigate to next step*" function key.



2. Press down on the safety ring to start the Check & Clean process.

↳ The lid closes.

⚠ CAUTION

If you cannot start the Check & Clean process with the safety ring, there is a malfunction with the safety device. You cannot continue to use the device. Please contact your authorized dealer.

5.1.5 Check the Check & Clean lid

Frequency: Weekly or every 50 cycles (whichever comes first).

The Check & Clean lid is automatically checked by the DAC Universal software.

If the Check & Clean lid is not recognized, the holder moves up and the lid must be reinserted into the holder.

5.1.6 Check the oil supply via the Check & Clean lid

Frequency: Weekly or every 50 cycles (whichever comes first).

In order to make sure that the DAC Universal is able to lubricate the instruments correctly, the flow through the internal oil channels of the Blue lid needs to be tested.

- ✓ The DAC Universal is switched on and is in the Check & Clean process menu.
- ✓ The Check & Clean lid is correctly inserted into the holder.

1. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



2. Press the "Check & Clean - start function" function key to start the oil supply.



↳ The DAC Universal pumps oil 5 times and then air for 30 seconds.

↳ Oil comes through the drive channel (triangle marking).

3. Repeat this process if no oil appears.

IMPORTANT

If the oil does not flow as described above, please contact your authorized dealer.

IMPORTANT

If the oil is empty during the check and an error message appears, this must be rectified before the Check & Clean process can be restarted.

5.1.7 Check the water supply via the Check & Clean lid

Frequency: Weekly or every 50 cycles (whichever comes first).

In order to make sure that the DAC Universal is able to bring water to the chamber and internal channels of the Blue and Green lids correctly, this operation needs to be tested.

- ✓ The DAC Universal is switched on and is in the Check & Clean process menu.
- ✓ The Check & Clean lid is correctly inserted into the holder.
- 1. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



2. Press the "Check & Clean - start function" function key to start the water supply.



- ↳ The DAC Universal pumps water for 10 seconds and then air for 30 seconds.
- ↳ Water comes through the drive channel (triangle marking).
- ↳ The DAC Universal pumps water for 10 seconds and then air for 30 seconds.
- ↳ Water comes through the spray channel (circle marking).

3. Repeat the process if no water appears.

IMPORTANT

If the water does not flow as described above, please contact your authorized dealer.

5.1.8 Check the water supply to the chamber

Frequency: Weekly or every 50 cycles (whichever comes first).

In order to make sure that the DAC Universal is able to bring water to the chamber correctly, this operation needs to be tested.

- ✓ The DAC Universal is switched on and is in the Check & Clean process menu.
- ✓ The Check & Clean lid is correctly inserted into the holder.
- 1. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.
- 2. Press the "Check & Clean - start function" function key to start the water flow into the chamber.





- ↳ The DAC Universal pumps water for 10 seconds.
- ↳ Water comes through the 6 holes in the chamber.

3. Repeat the process if no water appears.

IMPORTANT

If the water does not flow as described above, please contact your authorized dealer.

5.1.9 Open chamber / remove Check & Clean lid

Frequency: Weekly or every 50 cycles (whichever comes first).

- ✓ The DAC Universal is switched on and is in the Check & Clean process menu.

1. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.

- ↳ The lid moves up.



5.1.10 Check the water supply for all Blue and Green lids

Frequency: Weekly or every 50 cycles (whichever comes first).

This function is used to check whether there are blockages within the lid and their adapters.

For the following Check & Clean steps, the DAC Universal only serves to guide the user through the Check & Clean process. Nothing else is performed on the DAC Universal itself.

IMPORTANT

The water supply to the lid only needs to be checked for the Blue and Green lids, since these are the only ones with internal water channels.

- ✓ The DAC Universal is switched on and is in the Check & Clean process menu.
- ✓ All available Blue and Green lids are available and have cooled down.



- ✓ The Check & Clean cap is available.



1. Go to the next Check & Clean option by pressing the "Next Check & Clean step" function key.



2. Or go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



3. Place the Check & Clean cap on the Blue lid.

4. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.

5. Open the front flap of the DAC Universal.



6. Remove the water tank by carefully pulling the water tank up and out of the DAC Universal by the handle.

7. Place the water tank on a flat surface.

8. Remove the lid of the water tank.



9. Remove some water from the tank with a syringe (at least 10 ml).

WARNING

Risk of clogging!

Only use demineralized or distilled water for the check, otherwise blockages can occur, which can damage the lid and therefore prevent the cleaning of the instruments.

10. Use the syringe to inject the water through the two holes into the channels of the Blue lid (as shown in the image).

↳ Water flows through the small holes of all adapters.





11. Use the syringe to inject the water through the left hole into the channel of the Green lid (as shown in the image).
Water flows through the small holes of all adapters.

CAUTION

Risk of burns!

Leave the lid to cool down sufficiently, otherwise there is a risk that steam will form while injection the water.



12. Confirm that water is flowing by pressing the "Confirm" function key.
13. Repeat the process if no water appears.
14. Repeat the process for **all** available Blue and Green lids and with all adapters.
All lids are checked.

NOTE

Do not continue to use the lid if the water does not flow as described above and contact your authorized dealer.

5.1.11 Disassemble and clean the water tank

Frequency: Weekly or every 50 cycles (whichever comes first).

Disassemble and empty the water tank

- ✓ The DAC Universal is switched on and is in the Check & Clean process menu.
- ✓ The water tank is on a flat surface.

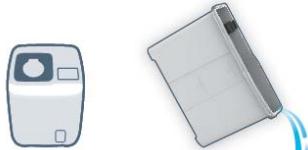
1. Go to the next Check & Clean option by pressing the "Next Check & Clean step" function key.



2. Or go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



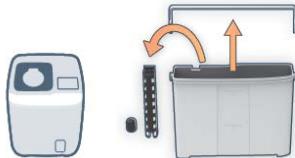
3. Drain the water tank.
There is no water left in the tank.



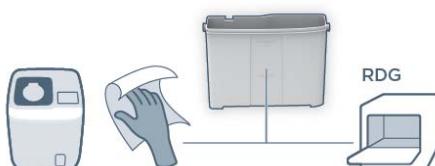
4. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



5. Disassemble the water tank by removing the handle, the lid and the float including the float guide.



6. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



Clean the water tank

There are 2 options for cleaning the water tank:

- Cleaning the individual parts in a thermal disinfecter
- Manual cleaning as described below.

1. Rinse the water tank with warm water (maximum 50 °C / 122 °F).
2. Empty the water tank again.
3. Clean the inside and outside of the water tank carefully with a moist cloth.
4. Wipe the inside and outside of the water tank dry with a clean cloth.

IMPORTANT

There must be no residual water in the water tank, otherwise the conductivity will be measured. An alarm sounds and an error message appears.

5. Rinse the handle, lid and the float incl. float guide with warm water (max. 50 °C / 122 °F).
6. Clean the handle, the lid and the float incl. the float guide carefully with a moist cloth.
7. Dry the inside and outside of the handle, the lid and the float incl. the float guide with a clean cloth.

5.1.12 Clean the drain filter

Frequency: Weekly or every 50 cycles (whichever comes first).

IMPORTANT

At approx. 10 cycles per day, the drain filter must be changed every 4 weeks, see "Replace the drain filter / O-rings on the drain filter [→ 93]".

- ✓ The DAC Universal is switched on and is in the Check & Clean process menu.
- ✓ Wear your personal protective gear.
- ✓ The filter key included with the unit is available.

1. Go to the next Check & Clean option by pressing the "Next Check & Clean step" function key.



2. Or go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



3. Unscrew the lid of the filter housing using the filter key.



4. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



5. Unscrew the drain filter from the filter housing counterclockwise by hand.



WARNING

Risk of contamination!

The drain filter may contain germs.

CAUTION

Risk of burns!

The drain filter may be hot.

6. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



7. Clean the inside and outside of the drain filter thoroughly under running water.



8. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



9. Screw the drain filter onto the filter housing clockwise by hand.



10. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



11. Screw the lid of the filter housing back on clockwise with the filter key.

NOTE

Tighten the filter housing well without using force.



5.1.13 Replace the drain filter / O-rings on the drain filter

Frequency: Every 4 weeks or every 200 cycles (whichever comes first).

IMPORTANT

The drain filter should be cleaned weekly or after every 50 cycles, see "Clean the drain filter [→ 91]".

- ✓ The DAC Universal is switched on and is in the Check & Clean process menu.
- ✓ Wear your personal protective gear.
- ✓ The filter key included with the unit is available.

1. Go to the next C&C option by pressing the "Next Check & Clean step" function key.



2. Or go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



3. Unscrew the lid of the filter housing using the filter key.



4. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



5. Unscrew the drain filter from the filter housing counterclockwise by hand.



⚠️ WARNING

Risk of contamination!

The drain filter may contain germs.

⚠️ CAUTION

Risk of burns!

The drain filter may be hot.

6. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



7. Dispose of the drain filter with the practice waste. Observe the relevant regulations in your country.



8. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



9. Change the O-ring on the screw. Dispose of the O-ring with the practice waste. Observe the relevant regulations in your country.



10. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



11. Screw a new drain filter onto the filter housing clockwise by hand.

NOTE

Tighten the drain filter well without using force.

12. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



13. Screw the lid of the filter housing back on clockwise with the filter key.

NOTE

Tighten the filter housing well without using force.

5.1.14 Clean the drain tank

Frequency: As soon as it is full and weekly or every 50 cycles (whichever comes first).

 **WARNING**

Risk of contamination!

Do not start a cycle if the DAC Universal is not connected to the drain tank or a siphon.

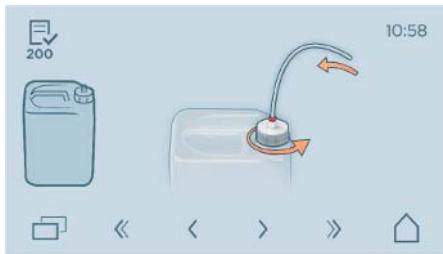
- ✓ The DAC Universal is switched on and is in the Check & Clean process menu.
- ✓ The drain tank is cooled down.
- ✓ Wear your personal protective gear.

1. Go to the next Check & Clean option by pressing the "Next Check & Clean step" function key.

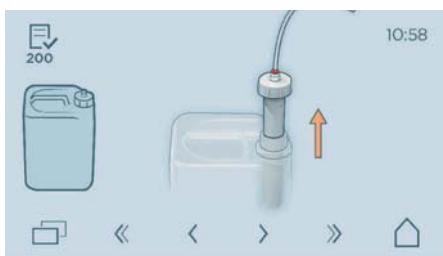


2. Or go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.





3. Unscrew the lid of the drain tank.



4. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.

5. Remove the condensation tube.



6. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.

7. Empty the drain tank. Dispose of the waste water according to the national guidelines and the applicable regulations for waste disposal.



8. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.

9. Fill the drain tank with tap water.

10. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



11. Rinse the drain tank thoroughly with hot water.



12. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.

13. Empty the drain tank completely.

14. Soak a soft cloth in hot water and wring it out well. Use the cloth to clean the exterior of the drain tank and the condensation tube.

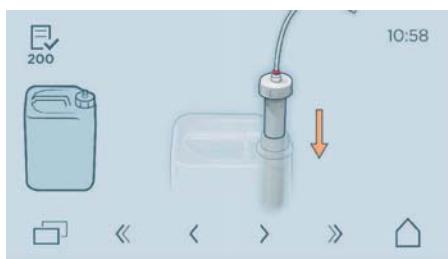


15. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.

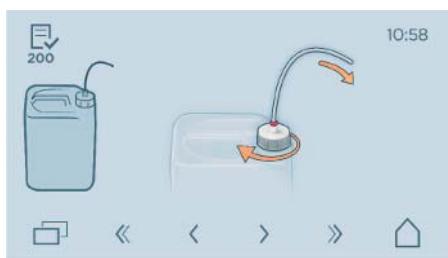
16. Fill the clean drain tank with water up to the lowest mark on the label.

17. Add isopropyl alcohol (alcohol $\geq 70\%$) up to the second mark on the label. This prevents the growth of bacteria in the drain tank.





19. Replace the condensation tube.



21. Screw down the lid again.

22. Place the drain tank no more than 3 m from the DAC Universal and at a lower height.

↳ The drain tank is cleaned and emptied.

5.1.15 Check the assembly of the adapters

Frequency: Weekly or every 50 cycles (whichever comes first).

CAUTION

The metal part of the lid is very hot at the end of the cycle. Please allow the lid to cool down before cleaning it.

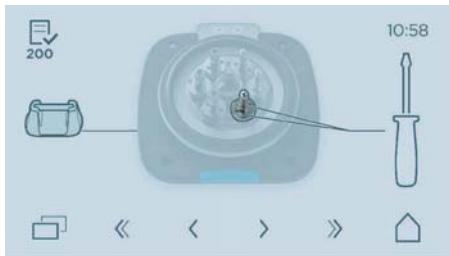
For further information about the adapters and the corresponding O-rings, please see the separate operating instructions for adapters.

Procedure

- ✓ The DAC Universal is switched on and is in the Check & Clean process menu.
- ✓ All available Blue and Green lids are ready.

1. Go to the next Check & Clean option by pressing the "Next Check & Clean step" function key.
2. Or go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.
3. Place the lid on a flat surface.





4. Check the attachment of the adapters to the lid by pulling each adapter slightly.
5. If an adapter is loose, tighten the screws with the 1.5 mm Allen key included with the unit.
6. Repeat for all available Blue and Green lids.

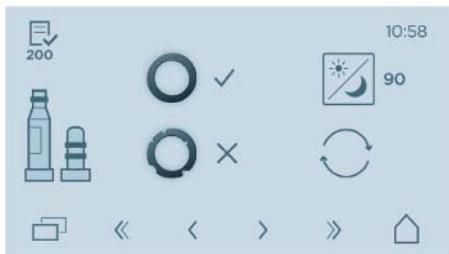
5.1.16 Check O-rings on the adapters

Frequency: Weekly or every 50 cycles (whichever comes first).

Procedure

- ✓ The DAC Universal is switched on and is in the Check & Clean process menu.
- ✓ All available adapters are ready.

1. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.



2. Check the O-rings on the adapters.
3. Repeat for all available adapters.

IMPORTANT

At approx. 10 cycles per day, the O-rings have to be replaced every 3 months. If an adapter O-ring is damaged or missing, replace it, see "Change the O-rings on the adapters [→ 99]".

WARNING

Risk of contamination!

If the O-rings are damaged or are missing, the reprocessing cycle cannot be guaranteed. Cross-contamination may occur.

For further information about the adapters and the corresponding O-rings, please see the separate operating instructions for adapters.

5.1.17 Change the O-rings on the adapters

Frequency: Every 3 months or every 600 cycles (whichever comes first).

- ✓ The DAC Universal is switched on and is in the Check & Clean process menu.
- ✓ All available adapters are ready.

1. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.
2. Check the O-rings on the adapters.
3. Remove the O-rings from the adapters using a dental probe or other instrument.
4. Slide the new O-rings into the notches on the adapter.



5. Repeat for all available adapters.

WARNING

Risk of contamination!

If the O-rings are not moved into the correct notches on the adapter, the instruments and the O-rings can be damaged. Correct disinfection is not ensured.

WARNING

Risk of contamination!

If the O-rings are damaged or are missing, the reprocessing cycle cannot be guaranteed. Cross-contamination may occur.

Some adapters have internal O-rings that must be replaced by your service technician during servicing.

For further information about the adapters and the corresponding O-rings, please see the separate operating instructions for adapters.

5.1.18 Clean the housing of the unit / the lid and the chamber

Frequency: Weekly or every 50 cycles (whichever comes first).

- ✓ The DAC Universal is switched on and is in the Check & Clean process menu.
- ✓ All available Blue and Green lids are ready.

1. Go to the next Check & Clean option by pressing the "*Next Check & Clean step*" function key.



2. Clean the housing, all available lids and empty chambers of the DAC Universal with a soft cloth and a solution of 70% isopropyl alcohol.



NOTE

The surface must not be cleaned with agents containing chlorine.

NOTE

Approved care, cleaning, and disinfecting agents

Use only care, cleaning, and disinfecting agents approved by Dentsply Sirona!

A continuously updated list of approved agents can be downloaded from the Internet on the online portal for technical documents. The portal can also be accessed directly via the following address:
www.dentsplysirona.com/manuals
Click on the menu item "*General documents*" and then open the "*Care, cleaning and disinfection agents*" document.

If you do not have any access to the Internet, you should contact your dental dealer to order the list.

5.1.19 Check the O-ring on the water tank

Frequency: Weekly or every 50 cycles (whichever comes first).

- ✓ The DAC Universal is switched on and is in the Check & Clean process menu.
- 1. Go to the next Check & Clean option by pressing the "*Next Check & Clean step*" function key.



- 2. Or go a step further in this Check & Clean option by pressing the "*Navigate to next step*" function key.



- 3. Check the O-ring on the seal underneath the water tank.
- 4. Replace the O-ring if it is defective.



WARNING

Risk of contamination!

If the O-rings are damaged or are missing, the reprocessing cycle cannot be guaranteed. Cross-contamination may occur.

5.1.20 Assemble / fill and insert the water tank

Frequency: Weekly or every 50 cycles (whichever comes first).

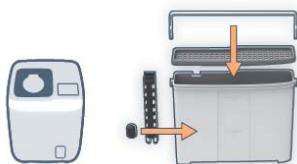
NOTE

Remove the water tank from the DAC Universal before filling it up. This prevents water from spilling into the inside of the DAC Universal housing.

- ✓ The DAC Universal is switched on and is in the Check & Clean process menu.
- ✓ Demineralized / distilled water (water conductivity < 3.0 $\mu\text{S}/\text{cm}$) is available.
- ✓ The water tank is on an even surface.
- 1. Go a step further in this Check & Clean option by pressing the "*Navigate to next step*" function key.



2. Assemble the water tank by inserting the handle, the lid and the float including the float guide.



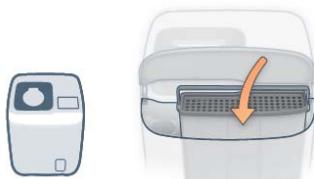
3. If you do not have an automatic water connection for your DAC Universal, fill demineralized/distilled water (water conductivity < 3.0 $\mu\text{S}/\text{cm}$) into the water tank (min. 1.0 liter, max. 2 liter).



4. Insert the water tank back into the DAC Universal.

IMPORTANT

When inserting the tank, ensure that the guide hooks are inserted correctly into the housing at the top on the back of the device.



5.1.21 Preparations after the Check & Clean process

Frequency: Weekly or every 50 cycles (whichever comes first).

- ✓ The DAC Universal is switched on and is in the Check & Clean process menu.
- ✓ NitraClean cleaning tablets are available.

1. Go to the next Check & Clean option by pressing the "*Next Check & Clean step*" function key.



2. Place a NitraClean tablet in the empty chamber.



3. Go a step further in this Check & Clean option by pressing the "*Navigate to next step*" function key.



4. After the Check & Clean cycle, start reprocessing with an empty Blue or Green lid and a NitraClean cleaning tablet.



5. Press the "Start" function key so the no-load operation can start.

↳ After the cycle is finished, the lid moves a little out of the chamber.



CAUTION

Risk of burns!

Never hold your head directly over the DAC Universal when it opens, as steam may emerge from the device.

6. Press the "Confirm" function key.

↳ The lid will open completely.



CAUTION

Risk of crushing!

Make sure that your fingers do not get caught between the opening lid and an object, such as any wall cabinets that may be above.



7. Go a step further in this Check & Clean option by pressing the "Navigate to next step" function key.

↳ The Check & Clean process is completed.



NitraClean cleaning tablets



NitraClean cleaning tablets are used for cleaning the empty chamber and internal cleaning of the hoses.

The empty chamber and the hoses must be cleaned when needed, or at least in the course of Check & Clean.

IMPORTANT

NitraClean cleaning tablets must not be put in the water tank.

Please see the MSDS for further information for the NitraClean tablets.
<http://www.dentsplysirona.com/en/service/safety-data-sheets/>

5.2 Biennial Service

Frequency: Every 2 years or every 3000 cycles (whichever comes first).

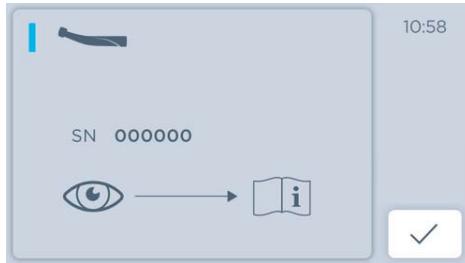


When 2 years or 3000 cycles have passed since the last service or the DAC Universal was put into use for the first time, the screen "Service needed" will be displayed, simultaneously with a 2-second acoustic alarm.

When this message appears, a qualified technician must perform a service on the DAC Universal to ensure the proper and efficient performance of the DAC Universal.

5.3 Install a new lid

If the lid is closed, the DAC Universal begins to recognize the lid.



The display shows the lid type and the serial number.

Confirm a new lid by pressing the "Confirm" function key.

IMPORTANT

Check that the reprocessing cycles can be validated with your new lid.

Observe any possible additional national requirements.

5.4 Mounting adapters

Up to 6 instruments can be reprocessed simultaneously in the DAC Universal. The instruments are connected to the lid using adapters. These adapters are not yet mounted when the unit is delivered.

An overview of all adapters, a detailed procedure for installing the adapters on the respective lids and a detailed procedure for installing the instruments on the adapters can be found in the separate operating instructions for adapters.

5.5 Adding/replacing the lubrication concentrate



General information about the NitramOil #2 lubrication concentrate bottle can be found in the chapter "NitramOil #2 lubrication concentrate [→ 25]".



Insert the oil bottle

- ✓ The lid on the DAC Universal is open.
- 1. Remove the red transport plug on the oil dispenser. Please keep this plug.
- 2. Remove the lid from the new NitramOil #2 bottle.
- 3. Press the black top of the oil bottle to release the transport lock.
- 4. Insert the oil bottle thread down into the thread of the oil dispenser (next to the water tank).



5. Turn the oil bottle carefully clockwise until you meet resistance.
6. Close the cover on the DAC Universal.

↳ The oil bottle is now inserted in the DAC Universal.

Replace the oil bottle

IMPORTANT

The oil bottle must be replaced when the "Low oil" message appears on the display.

- ✓ The lid on the DAC Universal is open.

1. Unscrew the empty oil bottle counterclockwise and remove it from the oil dispenser.

IMPORTANT

If the oil bottle is not completely empty, small quantities of oil may leak out of the bottle. Wipe the oil away with an absorbent cloth.

2. Remove the lid from the new NitramOil #2 bottle.
3. Press the black top of the oil bottle to release the transport lock.
4. Insert the new oil bottle thread down into the thread of the oil dispenser (next to the water tank).
5. Turn the oil bottle carefully clockwise until you meet resistance.
6. Close the cover on the DAC Universal.

↳ The oil bottle has been replaced.

Tip: You can also remove a partially used oil bottle that is not yet empty from the DAC Universal and insert it again at a later time.



5.6 Drain the chamber

If there is too much water left in the chamber, you can manually drain the chamber via the menu:

- ✓ The DAC Universal is switched on and ready for operation.
- ✓ The empty Blue lid is available and cooled down.

1. Turn the Blue lid so that the adapters are pointing down. The blue side of the lid faces you.
2. Place the Blue lid at the front of the DAC Universal holder and insert the Blue lid straight in the holder.

NOTE

Make sure that the lid is inserted all the way into the holder so that the instrument heads do not touch the wall of the chamber. Make sure there are no objects in the chamber. The DAC Universal, the lid and/ or the instruments can be damaged if a lid is not inserted correctly.

3. Press the "Menu" function key from the homescreen.



4. Press the "Manual" function key.



5. Press the "Manual: Empty chamber" function key.

- ↳ The lid closes automatically.
- ↳ The water is pumped from the chamber into the drain tank / drainage system.
- ↳ The lid opens again automatically after 60 seconds.

IMPORTANT

If the chamber is not completely empty, repeat the process until the chamber is completely empty.

5.7 Validation

The DAC Universal has been type tested and works tested according to requirements from applicable standards.

The manufacturer recommends to regularly validate the process of reprocessing with the DAC Universal.

Your authorized dealer can supply information on whether local validation procedures exist for your country. If so, the manufacturer recommends performing validation of reprocessing with the DAC Universal as specified by the local authorities.

Regular routine checks are recommended to check the reprocessing cycle. While the DAC Universal automatically monitors critical parameters such as time and temperature, periodic verification to ensure proper soil removal should be part of your practice's quality management system.

5.8 Uninstallation and transport

Uninstallation

If the DAC Universal needs to be transported, please follow the guidelines below.



- ✓ The DAC Universal is switched off and cooled down.
- ✓ The two red transport plugs are available.

1. If the DAC Universal is connected to an automatic water supply system, switch this off and deactivate the automatic water supply in the menu (under settings/technician settings / settings: automatic supply of demineralized water).
2. Empty the water tank.
3. Remove the oil bottle from the dispenser.
4. Clean the oil dispenser and suck out any residual oil through the hole under the oil dispenser by using a syringe.
5. Put the red transport plug in the oil dispenser.
6. Turn off the compressed air supply.
7. Disconnect the tube for the air inlet.
8. Unplug the drain hose connection.
9. Disconnect the hose from the water supply if there is an automatic water supply.
10. Remove the lid (if the lid is shipped with the DAC Universal then it must be packed separately).
11. Put the red transport plug on the chamber.
12. Using the menu (under Manual / Manual: Close), let the lid holder go down and stop it before it touches the safety ring.
13. Turn off the DAC Universal at the mains switch.
14. Pull out the power cable of the DAC Universal.

Transport

CAUTION

Risk of burns!

The bottom plate of the DAC Universal can be hot.

CAUTION

The DAC Universal weighs approx. 26 kg / 57 pounds and one lid (incl. 6 adapters) weighs approx. 1.7 kg / 3.75 pounds.

Therefore, when transporting the DAC Universal, make sure that you hold the unit securely by the grips on the side.

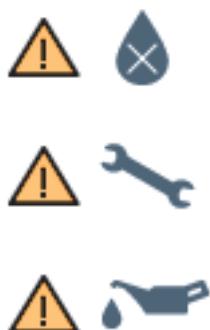
It is not recommended to carry the DAC Universal for a great distance.

6 Errors / Display messages

There are 4 kinds of messages:

- Warning messages
- Process error messages as pop-up messages
- Error messages as pop-up messages
- User messages

6.1 Warning messages



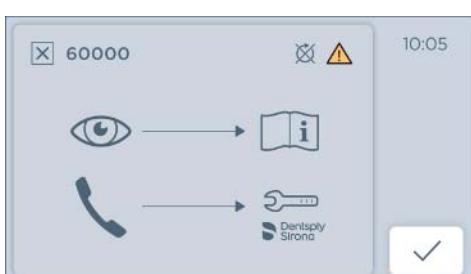
Warning messages appear regardless of the cycle, do not discontinue the cycle and can also appear during standby times. They are only displayed on the homescreen on the right side.

There are 3 kinds of warning messages:

- Poor water quality
- Service needed
- No oil (there is no oil in the lubrication concentrate bottle or a lubrication concentrate bottle is missing)

6.2 Process error messages as pop-up messages

Process error messages as pop-up messages



These messages may appear during a reprocessing cycle or if a reprocessing cycle is to be started. They always result in the reprocessing cycle being discontinued and appear as a pop-up message.



The symbol appears that the cycle has been discontinued, an alarm signals and the LED flashes.

If a process error message appears during the reprocessing cycle, the lid opens and moves up.

There is a tick/confirmation function key to confirm that the error message has been acknowledged.

If there are several error messages at the same time, only one is shown. After the first is displayed, the next message is displayed. There is no specific sequence for this. The message can be confirmed, which

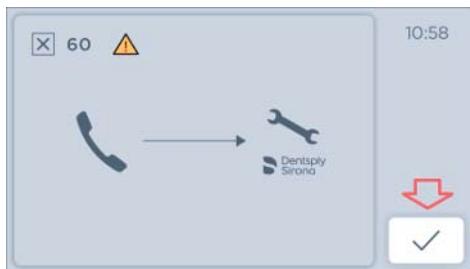
switches off the alarm and then the homescreen is displayed again. There is no additional window for all error messages that have resulted in the reprocessing cycles being canceled.

After confirming the message(s), you are automatically taken to the homescreen.

There are 8 kinds of process error messages:

- No compressed air
- Water tank is not inserted in the DAC Universal
- Poor water quality
- No oil (there is no oil in the lubrication concentrate bottle or a lubrication concentrate bottle is missing)
- Service needed. Please check the operating instructions or contact your authorized dealer.
- The process was personally discontinued.
- A new lid has been inserted into the DAC Universal.

6.3 Error messages as pop-up messages



The messages only appear outside a reprocessing cycle. They appear as a pop-up message but without the symbol that the cycle can be canceled, no acoustic alarm will sound and the LED will not light up.

The error message covers the "Start reprocessing cycle" function key

There are 4 kinds of error messages as pop-up messages:

- Please contact your authorized dealer.
- Safety ring was pressed
- No compressed air
- Front flap on the water tank is still open

All error messages are displayed, as soon as the message has been confirmed the homescreen appears again.

Exception:

The error message shown here appears if the "Cancel" function key is pressed during an ongoing reprocessing cycle. The DAC Universal shows this message to confirm whether you really want to cancel the cycle or have canceled the cycle accidentally.



6.4 User messages

User messages

They cover the cycle start key in order to prevent the cycle from being started if the DAC Universal cannot/must not be started.

No acoustic alarm will sound and the LED does not flash.

The sequence of the user messages indicates their priority and also shows the order in which the user should resolve the messages. They appear one on top of the other so that the user can handle them in order.

There are 6 kinds of user messages:

- Please contact your authorized dealer.



- No compressed air



- Water tank is not inserted in the DAC Universal



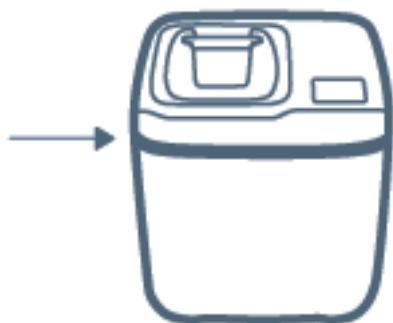
- No water



- Poor water quality



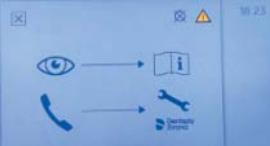
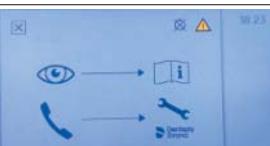
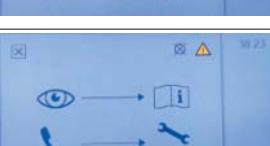
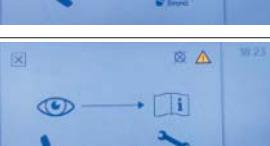
- Front flap on the water tank is still open

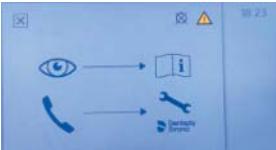
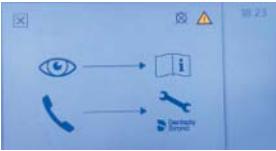
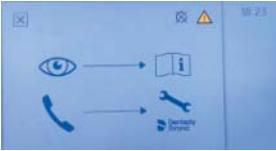
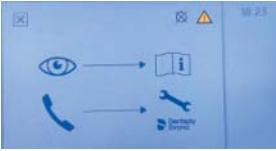
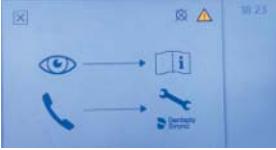


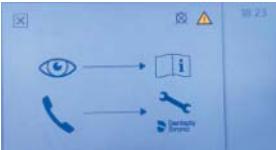
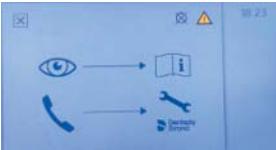
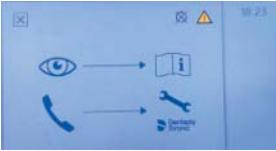
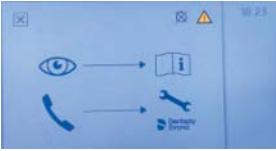
6.5 Display messages and what they mean

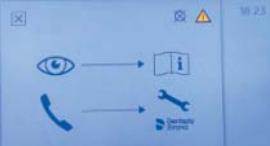
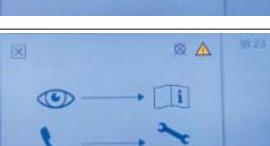
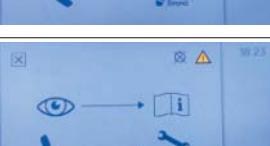
The display messages each have an assigned number. The number will be visible in the top left corner next to the error symbol (not necessarily shown below). The unique code number for each display message is shown in the table below, combined with an explanation to the specific display message:

Code no.	Pictogram	Description	Corrective action
116		Error message	Please contact your authorized dealer.
102		Error message	Please contact your authorized dealer.
118		Error message	Please contact your authorized dealer.
119		Error message	Please contact your authorized dealer.

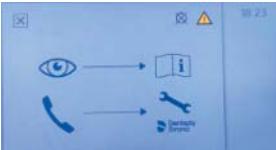
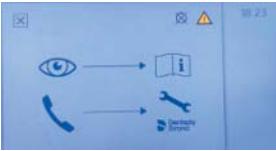
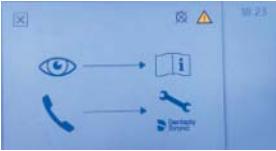
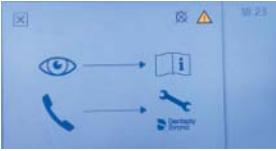
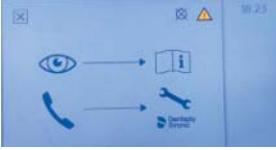
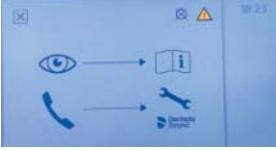
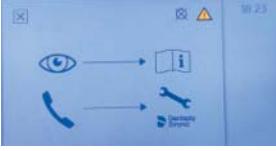
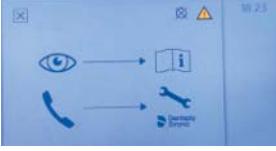
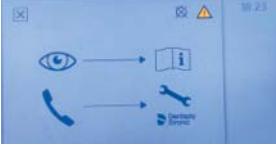
Code no.	Pictogram	Description	Corrective action
103		Error message	Please contact your authorized dealer.
104		Error message	Please contact your authorized dealer.
105		Error message	Please contact your authorized dealer.
106		Error message	Please contact your authorized dealer.
100		Error message	Please contact your authorized dealer.
117		Error message	Please contact your authorized dealer.
107		Error message	Please contact your authorized dealer.
108		Error message	Please contact your authorized dealer.
109		Error message	Please contact your authorized dealer.
110		Error message	Please contact your authorized dealer.

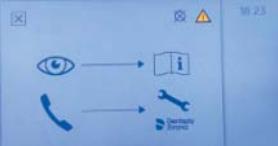
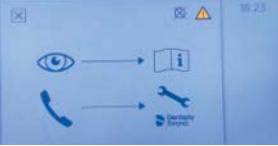
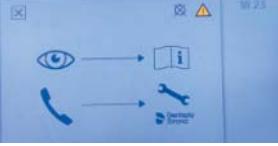
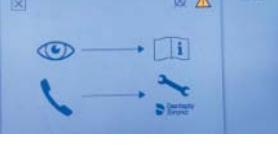
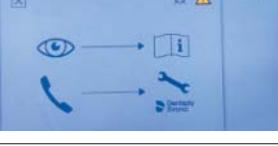
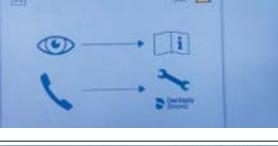
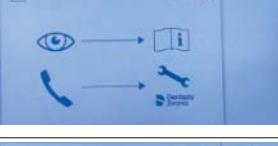
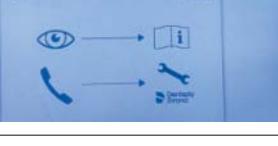
Code no.	Pictogram	Description	Corrective action
111		Error message	Please contact your authorized dealer.
112		Error message	Please contact your authorized dealer.
113		Error message	Please contact your authorized dealer.
114		Error message	Please contact your authorized dealer.
115		Error message	Please contact your authorized dealer.

Code no.	Pictogram	Description	Corrective action
1000		Error message	Please contact your authorized dealer.
1001		Error message	Please contact your authorized dealer.
1002		Cycle discontinued by the user.	Please contact your authorized dealer.
1003		The safety ring was pressed.	Please contact your authorized dealer.

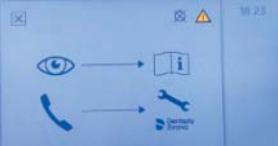
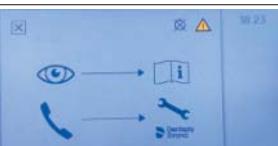
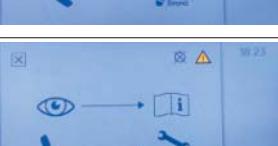
Code no.	Pictogram	Description	Corrective action
1004		Error message	Please contact your authorized dealer.
1005		Error message	Please contact your authorized dealer.
1006		The water tank is not inserted.	Please contact your authorized dealer.
1007		Poor water quality	Please contact your authorized dealer.
1008		No compressed air	Please check the compressed air supply.
1009		Error message	Please contact your authorized dealer.
1010		Error message	Please contact your authorized dealer.

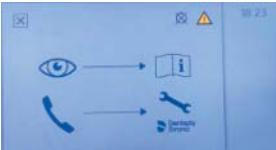
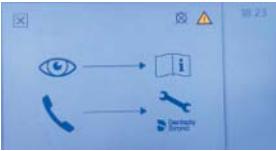
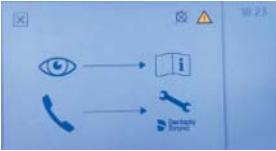
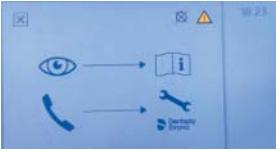
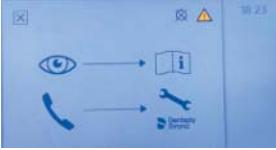
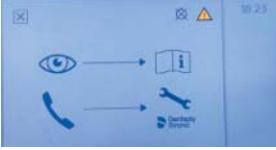
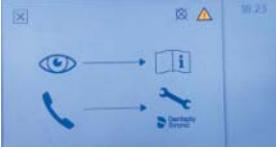
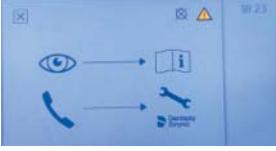
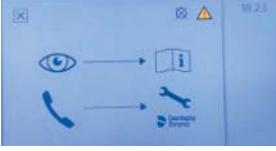
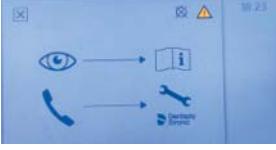
Code no.	Pictogram	Description	Corrective action
1100		Error message	Please contact your authorized dealer.
1101		Error message	Please contact your authorized dealer.

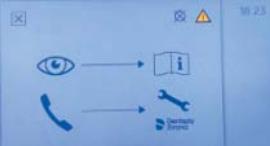
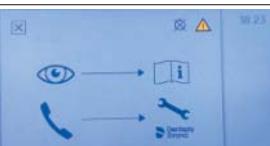
Code no.	Pictogram	Description	Corrective action
1102		Error message	Please contact your authorized dealer.
1200		Error message	Please contact your authorized dealer.
1201		Error message	Please contact your authorized dealer.
1202		Error message	Please contact your authorized dealer.
1300		Error message	Please contact your authorized dealer.
1301		Error message	Please contact your authorized dealer.
1302		Error message	Please contact your authorized dealer.
1303		Error message	Please contact your authorized dealer.
1400		Error message	Please contact your authorized dealer.
1401		Error message	Please contact your authorized dealer.

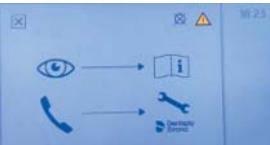
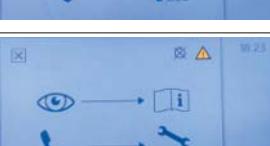
Code no.	Pictogram	Description	Corrective action
1402		There is too little water in the water tank.	Please contact your authorized dealer.
1403		Error message	Please check the outlet filter.
1404		Error message	Please check the compressed air supply.
1405		Error message	Please check the outlet filter.
1406		Error message	Please contact your authorized dealer.
1500		Error message	Please contact your authorized dealer.
1501		Error message	Please contact your authorized dealer.
1502		Error message	Please contact your authorized dealer.
1503		Error message	Please contact your authorized dealer.
1504		Error message	Please contact your authorized dealer.

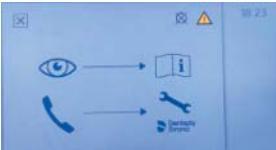
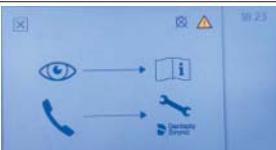
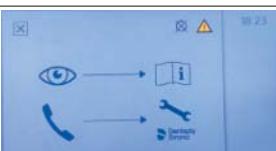
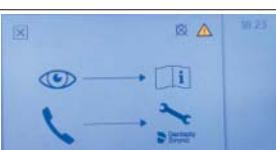
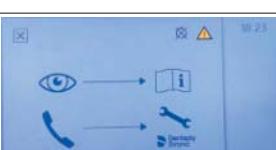
Code no.	Pictogram	Description	Corrective action
1505		Error message	Please contact your authorized dealer.
1506		Error message	Please check the outlet filter. Please check the load. There may be a maximum of 4 instruments without a spray channel if 2 adapters are not used at the same time.
1507		Error message	Please contact your authorized dealer.
1508		Error message	Please check the outlet filter.
1509		Error message	Please contact your authorized dealer.
1510		Error message	Please check the outlet filter.
1511		Error message	Please check the outlet filter.
1600		Error message	Please contact your authorized dealer.
1601		Error message	Please contact your authorized dealer.
1602		Error message	Please contact your authorized dealer.

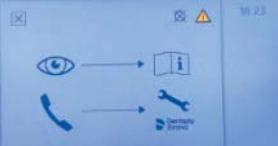
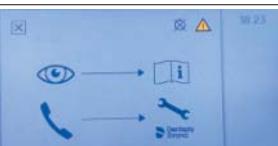
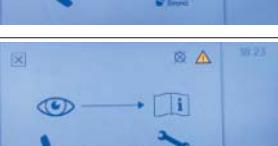
Code no.	Pictogram	Description	Corrective action
1603		Error message	Please contact your authorized dealer.
1604		Error message	Please contact your authorized dealer.
1605		Error message	Please check the outlet filter.
1700		Error message	Please contact your authorized dealer.
1701		Error message	Please contact your authorized dealer.
1702		There is too little water in the water tank.	Please contact your authorized dealer.
1703		Error message	Please check the outlet filter.
1704		Please check the compressed air supply.	Please contact your authorized dealer.
1705		Please check the outlet filter.	Please check the outlet filter.
1706		Error message	Please contact your authorized dealer.

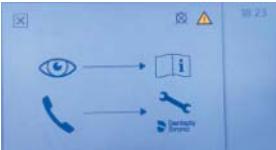
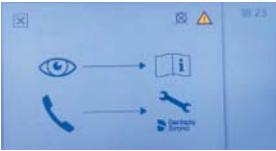
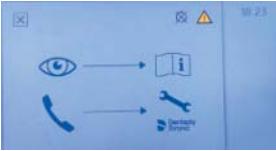
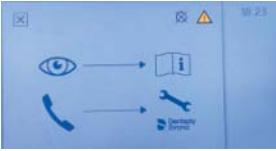
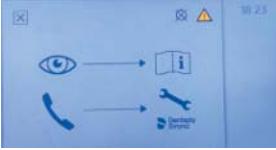
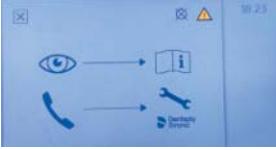
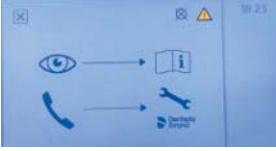
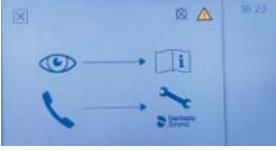
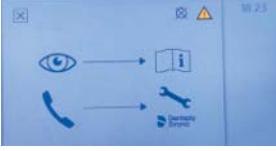
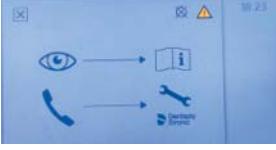
Code no.	Pictogram	Description	Corrective action
1800		Error message	Please contact your authorized dealer.
1801		Error message	Please contact your authorized dealer.
1802		There is too little water in the water tank.	Please contact your authorized dealer.
1803		Error message	Please check the outlet filter.
1804		Error message	Please check the compressed air supply.
1805		Error message	Please check the outlet filter.
1806		Error message	Please contact your authorized dealer.
1807		Error message	Please contact your authorized dealer.
1808		Error message	Please check the outlet filter.
1809		Error message	Please check the outlet filter.

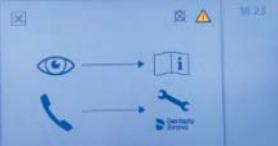
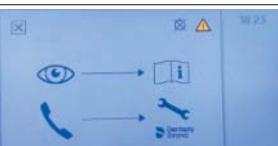
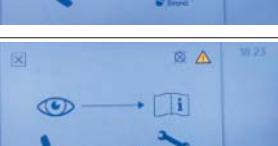
Code no.	Pictogram	Description	Corrective action
1900		Error message	Please contact your authorized dealer.
1901		Error message	Please contact your authorized dealer.
1902		Error message	Please check the outlet filter.
1903		Error message	Please contact your authorized dealer.

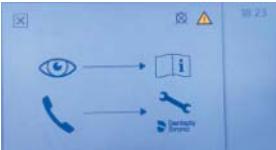
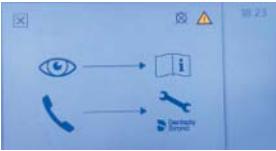
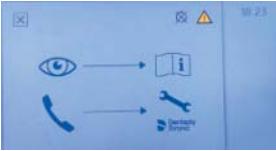
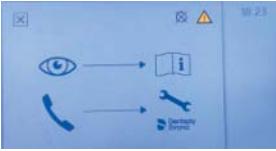
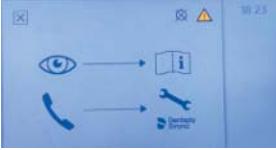
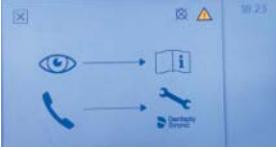
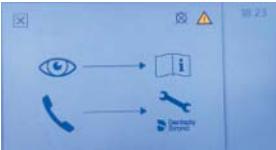
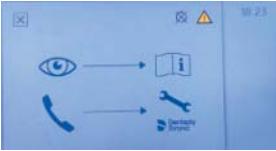
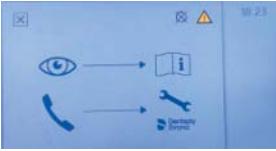
Code no.	Pictogram	Description	Corrective action
2000		Error message	Please contact your authorized dealer.
2001		Error message	Please contact your authorized dealer.
2002		Cycle discontinued by the user.	Please contact your authorized dealer.
2003		The safety ring was pressed.	Please check the outlet filter.
2004		Error message	Please contact your authorized dealer.

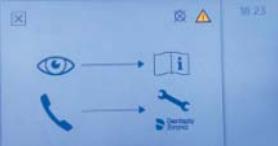
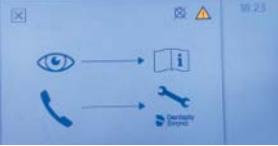
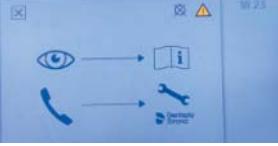
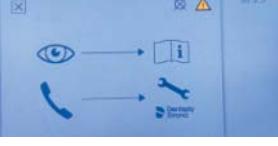
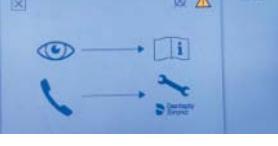
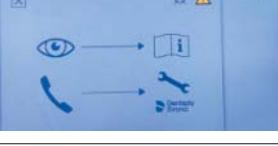
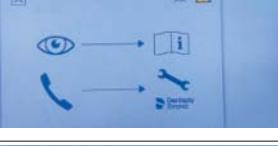
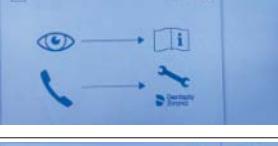
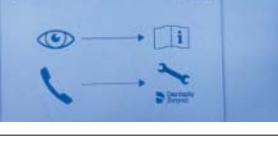
Code no.	Pictogram	Description	Corrective action
2005		Error message	Please check the outlet filter.
2100		The water tank is not inserted.	Please contact your authorized dealer.
2101		Poor water quality	Please contact your authorized dealer.
2102		There is too little water in the water tank.	Please contact your authorized dealer.
2103		Error message	Please check the outlet filter.
2104		Error message	Please check the compressed air supply.
2105		Error message	Please check the outlet filter.
2106		Error message	Please contact your authorized dealer.
2200		Error message	Please contact your authorized dealer.
2201		Error message	Please contact your authorized dealer.

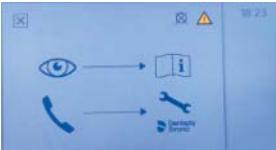
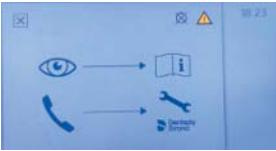
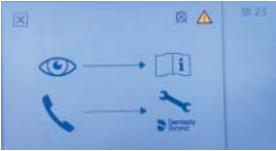
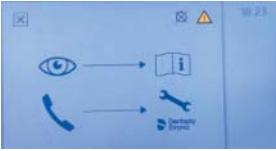
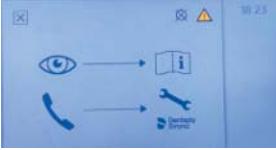
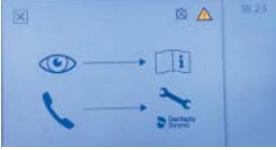
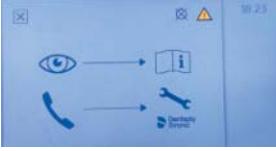
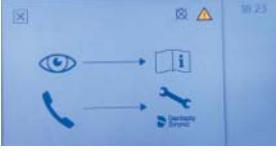
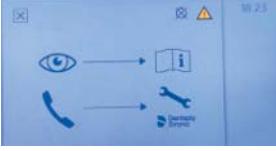
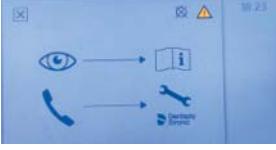
Code no.	Pictogram	Description	Corrective action
2202		Error message	Please contact your authorized dealer.
2300		Error message	Please contact your authorized dealer.
2301		Error message	Please contact your authorized dealer.
2302		Error message	Please contact your authorized dealer.
2303		Error message	Please contact your authorized dealer.
2304		Error message	Please contact your authorized dealer.
2400		Error message	Please contact your authorized dealer.
2401		Error message	Please contact your authorized dealer.
2402		Error message	Please contact your authorized dealer.
2403		Error message	Please contact your authorized dealer.

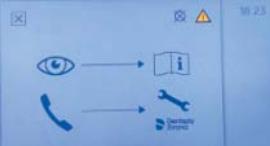
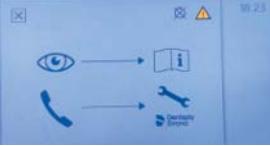
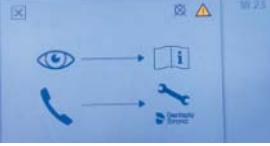
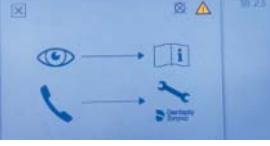
Code no.	Pictogram	Description	Corrective action
2404		Error message	Please contact your authorized dealer.
2500		Error message	Please contact your authorized dealer.
2501		Error message	Please contact your authorized dealer.
2502		Error message	Please contact your authorized dealer.
2503		Error message	Please contact your authorized dealer.
2600		Error message	Please contact your authorized dealer.
2601		Error message	Please contact your authorized dealer.
2602		Error message	Please contact your authorized dealer.
2603		Error message	Please contact your authorized dealer.
2700		Error message	Please contact your authorized dealer.

Code no.	Pictogram	Description	Corrective action
2701		Error message	Please contact your authorized dealer.
2800		Error message	Please contact your authorized dealer.
2801		Error message	Please contact your authorized dealer.
2802		Error message	Please contact your authorized dealer.
2803		Error message	Please contact your authorized dealer.
2804		Error message	Please contact your authorized dealer.
2805		Error message	Please contact your authorized dealer.
2806		Error message	Please contact your authorized dealer.
2807		Error message	Please contact your authorized dealer.
2808		Error message	Please contact your authorized dealer.

Code no.	Pictogram	Description	Corrective action
2900		Error message	Please contact your authorized dealer.
2901		Error message	Please contact your authorized dealer.
2902		Error message	Please contact your authorized dealer.
2903		Error message	There is too little water in the water tank.
2904		Error message	Please contact your authorized dealer.
2905		Error message	Please contact your authorized dealer.
Code no.	Pictogram	Description	Corrective action
3100		Error message	Please contact your authorized dealer.
3101		Error message	Please contact your authorized dealer.
3102		Cycle discontinued by the user.	Please contact your authorized dealer.

Code no.	Pictogram	Description	Corrective action
3103		The safety ring was pressed.	Please check the outlet filter.
3200		Error message	Please contact your authorized dealer.
3201		Error message	Please contact your authorized dealer.
3202		The water tank is not inserted.	Please contact your authorized dealer.
3203		Poor water quality	Please check the outlet filter.
3300		No compressed air	Please check the compressed air supply.
3301		Error message	Please contact your authorized dealer.
3400		Error message	Please contact your authorized dealer.
3401		Error message	Please contact your authorized dealer.
3500		Error message	Please contact your authorized dealer.

Code no.	Pictogram	Description	Corrective action
3501		Error message	Please contact your authorized dealer.
5000		Error message	Please contact your authorized dealer.
5001		Error message	Please contact your authorized dealer.
5002		Error message	Please contact your authorized dealer.
5003		Error message	Please contact your authorized dealer.
5004		Error message	Please contact your authorized dealer.
5100		Error message	Please check the water quality.
5101		Error message	Please check the water quality.
5102		There is too little water in the water tank.	Please contact your authorized dealer.
6000		Error message	Please contact your authorized dealer.

Code no.	Pictogram	Description	Corrective action
6001		Error message	Please contact your authorized dealer.
6002		Error message	Please contact your authorized dealer.
9000		Error message	Please contact your authorized dealer.
9001		Error message	Please contact your authorized dealer.
9002		Error message	Please contact your authorized dealer.

6.6 Errors without a message

Description	Corrective action
There is water in the chamber after end of cycle.	Drain the chamber and start a cycle. If the error persists, clean or change the drain filter. Check whether the drain hose is blocked or damaged. Empty the drain tank if it is full. If the error occurs repeatedly, please contact your authorized dealer.
Adapter is loose.	Tighten the adapter with the Allen key included.
The water tank is not automatically re-filled.	Check whether the automatic water intake is activated in the DAC Universal menu, see "Technician settings [→ 57]". Check whether water from the external water supply is fed to the DAC Universal. If the error occurs repeatedly, please contact your authorized dealer.
Loud continuous alarm signal.	Switch off the DAC Universal immediately by unplugging the power cord. Please contact your authorized dealer. IMPORTANT: Do not use the device until it has been serviced by your authorized dealer.

NOTE

Safe operation of the DAC Universal cannot be ensured unless service intervals are observed.

7 Accessories, consumables, spare parts, and tools

The accessories, spare parts and consumables for the DAC Universal are available from your local authorized dealer.

For further information about the adapters and the corresponding O-rings, please see the separate operating instructions for adapters.



8 Disposal

On the basis of the Directive 2012/19/EU and the country-specific disposal regulations on waste electrical and electronic equipment, we would like to stress that such equipment must be disposed of accordingly within the European Union (EU). These regulations demand environmentally friendly recycling / disposal of waste electrical and electronic equipment. These parts must not be disposed of as domestic refuse. This has been symbolized by the symbol of the crossed out garbage bin.

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 devices, please proceed as follows:

In Germany

In order to arrange return of the electrical equipment, please send a disposal request to "enretec GmbH." The following options are available for this purpose:

- Use the 'Returning an electrical device' button under the 'eom' menu item on the enretec GmbH homepage (www.enretec.de).
- Alternatively, you can also contact enretec GmbH directly.

enretec GmbH
Kanalstraße 17
16727 Velteln

Tel: +49 3304 3919-500
Email: eom@enretec.de

In accordance with the national disposal regulations regarding old electrical and electronic devices (ElektroG), as the manufacturer, we assume the costs for disposing of the electrical and electronic devices in question. Disassembly, transport, and packaging costs shall be borne by the owner/operator.

Prior to disassembly/disposal of the unit, it must be reprocessed professionally (cleaned/disinfected).

If your unit is not permanently installed, it will be collected from the practice. If it is permanently installed, it will be picked up curbside at your address by appointment.

Other countries

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

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

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