

Parametri solicitati	Parametri ofertati
<p>Instalație stomatologică cu următorii parametri: - dotat cu minim 3 programe de poziționare - setari pentru 1 utilizatori - posibilitatea de reglarea poziției de ridicare pentru intervalul: de la 470 pina la 770 mm (limita de jos Nu va fi mai mare, limita de sus Nu va fi mai mică) - tetiera ergonomica detașabilă cu reglaj mecanic - unghi de înclinare de la 120 grade pînă la 180 grade - lățimea spătarului de la 560 mm \pm 10% - lățimea fotoliului de la 460 mm \pm 10% - blocare automată a unitului cînd s-a atins poziția de coborîre maximă permisă - spatarul si tetiera acoperit cu piele artificială. - dotat cu monitor și cameră intraorală - posibilitatea de a inchide circuit de apa de care utilizator (robinet auxiliar pentru blocarea apei)</p> <p>Caracteristica tehnică: - tensiunea de alimentare 230 V - capacitate de incarcare maxim 150 kg</p> <p>• Masa medicului să fie echipată cu 5 instrumente integrate de sus: Tavita suspendata sub masa medicului cu tava din inox Lungimea brațului 75 cm \pm 10cm Reglarea de către procesor a regimului de lucru a instrumentelor. Grup din 3 electrovalve separate (racire cu apa si aer sau aer de lucru) pentru turbina si motor sau echivalent cu funcție similară - Seringa cu trei căi – apă, aer și spray Carcasă metalică cu vîrf angulat 45 grade \pm 5grade, detașabil - Furtun pentru turbină cu lumină tip Midwest - Micromotor electric. Posibilitatea de cuplare directă la furtunul unității stomatologice. Cu reglare electronica de procesor Posibilitate de cuplare rapidă și facilă pieselor de mîină (contraunghi/dreapta)</p> <p>Sursă de lumină LED Viteza de rotație și posibilitatea de reglare pentru intervalul: 1.000 pînă la 20.000rp. (limita de jos NU va fi mai mare, limita de sus NU va fi mai mică). Spray apă, aer încorporate separate Intensitatea luminii led minim 26000 lux Posibilitatea de sterilizare în autoclav.</p> <p>Detartor (scaler) cu minim 6 vîrfuri cu iluminare LED Frecvența de lucru de la 25 pîna la 31kHz; Alimentare 24 V curent alternative; pentru scaling 5buc diferite ca mărime; Vîrf pentru Periodontics 1 buc; Vîrf pentru Endo cu cheie; K-file minim 4 ; Cheie dinamometrica pentru vîrfuri; Funcții, aria de aplicații: Scaling, Endodontic, îndepărtare de coroane, Tixotropice cimentare, Amalgam condensare; Lampa fotopolimer Tensiune de alimentare: 24 V ca \pm 10% - 50/60 Hz Lungimea de undă: de la 440 pînă la 480 nm, cu un maxim la 460</p>	<p>Instalație stomatologică cu următorii parametri: - dotat cu 4 programe de poziționare - setari pentru 2 utilizatori (4.1, pagina 27)</p> <p>- posibilitatea de reglarea poziției de ridicare pentru intervalul: de la 470 pina la 770 mm (limita de jos Nu va fi mai mare, limita de sus Nu va fi mai mică) Capitolul 2 pagina 16-19</p> <p>- tetiera ergonomica detașabilă cu reglaj mecanic (5.5.3. pagina 90)</p> <p>- unghi de înclinare de la 120 grade pînă la 180 grade (capitolul 2 pagina 17-19)</p> <p>- lățimea spătarului de la 560 mm \pm 10% - lățimea fotoliului de la 460 mm \pm 10% (capitolul 2 pagina 17-19)</p> <p>- blocare automată a unitului cînd s-a atins poziția de coborîre maximă permisă (4.1.5 pagina 34 – sensori de siguranta)</p> <p>- spatarul si tetiera acoperit cu piele artificială. (instructiuni chair pro)</p> <p>- dotat cu monitor și cameră intraorală exista posibilitatea si este inclusa in oferta https://diplomat-dental.com/product/model-one/</p> <p>- posibilitatea de a inchide circuit de apa de care utilizator (robinet auxiliar pentru blocarea apei) (schema tehnica, se instaleaza la conectarea unitului)</p> <p>Caracteristica tehnică:</p> <p>- tensiunea de alimentare 230 V (1.2. pagina 11)</p> <p>- capacitate de incarcare maxim 200 kg (pagina 12)</p> <p>• Masa medicului echipată cu 5 instrumente integrate de sus: Tavita suspendata sub masa medicului cu tava din inox (1.2 pagina 11)</p> <p>Lungimea brațului 120 cm (nu avem mentionat in instructiuni dar putem demonstra lungimea mentionata pe fotoliu din stoc)</p> <p>Reglarea de către procesor a regimului de lucru a instrumentelor. Grup din 3 electrovalve separate (racire cu apa si aer sau aer de lucru) pentru turbina si motor sau echivalent cu funcție similară (3.1 pagina 21)</p> <p>- Seringa cu trei căi – apă, aer și spray Carcasă metalică cu vîrf angulat 45 grade \pm 5grade, detașabil (pagina 120)</p> <p>- Furtun pentru turbină cu lumină tip Midwest (4.9.1 pagina 41)</p> <p>- Micromotor electric DX PRO. Posibilitatea de cuplare directă la furtunul unității stomatologice. Cu reglare electronica de procesor Posibilitate de</p>

nm; Fibra optică cu diametru 8 mm ± 1 mm Fibra detașabilă v-a permite sterilizarea în autoclav Ecran cu indicarea timpului de expunere de la 5sec. până la 20 sec. trei regimuri de lucru – putere maximă, start lent și pulsativ

Panou de comanda Tastatura din partea dreaptă pentru dirijarea instrumentelor și fotoliului: - posibilitatea de reglare viteză rot/min. - activarea negatoscop - micșorarea puterii rot/min - revers pentru micromotor - iluminarea la instrumente - comutarea răcirii în doua regimuri diferite spre/nimic - indicator cu lumină la activare a opțiunilor - umplerea paharului cu apa - clătirea scuiptoarei cu apa - mișcarea fotoliului în sus - mișcarea fotoliului în jos - mișcarea spătarului înainte - mișcarea spătarului înapoi - revenirea fotoliului la poziția inițială

- salvarea și revenirea repetată a pozițiilor de lucru a fotoliului - regim de blocare a sensorului funcțiile de umplere pahar și curățire bol scuiptoare să fie la masa medicului sau de la masa asistentei Indicator cu lumina a puterii rot/min de la 0 % pînă la 100 % Brațul asistentului cu butoane de comandă încorporate. - umplerea paharului cu apa - clătirea scuiptoarei cu apa - mișcarea fotoliului în sus - mișcarea fotoliului în jos - mișcarea spătarului înainte - mișcarea spătarului înapoi - regim de blocare a sensorului pentru a facilita dezinfectarea sau echivalent funcțional. Reglare a puterii de aspirare, Dotat cu filtru pentru particule mari, tip detașabil Puterea de aspirare minim 0.5 l/min Reflector Stomatologic Brațul dublu articulat, Braț pantografic balansat, Două axe de rotație, în plan vertical și orizontal

Caracteristica tehnică a reflectorului: să ofere posibilitatea de a lucra cu materialele fotopolimerizabile, neaccelerând polimerizarea materialelor Lumina concentrată într-un dreptunghi cu dimensiunile de minim 70x140 mm la distanță optimală de 70 cm ±5 de focusare. Iluminare de la minim 8000 lux. Pedala electrică multifuncțională cu fir Comanda instrumentelor prioritare Reglarea puterii micromotorului prin actionare mecanica a butonelor de control Buton separat pentru mișcarea fotoliului sus-jos, coborîre-ridicare spătar Butoane separate pentru: - Selectarea programelor de poziționare a pacientului în fotoliu - Activarea poziționării selectate a pacientului - Pentru activare / deconectare răcire spray pentru instrumente - Revers pentru micromotor - Pentru funcția seringă la turbină și micromotor - Reglare lentă a rotațiilor micromotorului Blocul hidraulic - Bol din sticlă ceramic sau material

cuplare rapidă și facilă pieselor de mână (contraunghi/dreapta) **(4.9.2 pagina 42)** Sursă de lumină LED Viteza de rotație și posibilitatea de reglare pentru intervalul: 100 pînă la 40.000rpm, Spray apă,aer încorporate separate Intensitatea luminii led 40000 lux Posibilitatea de sterilizare în autoclav. <https://www.eur-med.sk/en/produkty/densim/densim-instruments/bezuhlukove-mikromotory/dx-pro-dx-pro-blue>

Detartor (scaler) UDS-N3 LED, Woodpecker cu 6 vîrfuri cu iluminare LED Frecvența de lucru de la 25 pînă la 31kHz; Alimentare 24 V curent alternativ; pentru scaling 6 buc diferite ca mărime; Vîrf pentru Periodontics 1 buc; Vîrf pentru Endo cu cheie; K-file 4 ; Cheie dinamometrică pentru vîrfuri; Funcții, aria de aplicații: Scaling, Endodontic, îndepărtare de coroane, Tixotropice cimentare, Amalgam condensare; **(4.9.8 Scaler Woodpecker)**

Lampa fotopolimer **LED C Woodpecker** Tensiune de alimentare: 24 V ca ± 10% - 50/60 Hz Lungimea de undă: de la 440 pînă la 480 nm, cu un maxim la 460 nm; Fibra optică cu diametru 8 mm ± 1 mm Fibra detașabilă v-a permite sterilizarea în autoclav Ecran cu indicarea timpului de expunere de la 5sec. pînă la 20 sec. trei regimuri de lucru – putere maximă, start lent și pulsativ

Panou de comanda **(pagina 30, 4.1.3)**Tastatura din partea dreaptă pentru dirijarea instrumentelor și fotoliului: - posibilitatea de reglare viteză rot/min. - activarea negatoscop - micșorarea puterii rot/min - revers pentru micromotor - iluminarea la instrumente - comutarea răcirii în doua regimuri diferite spre/nimic - indicator cu lumină la activare a opțiunilor - umplerea paharului cu apa - clătirea scuiptoarei cu apa - mișcarea fotoliului în sus - mișcarea fotoliului în jos - mișcarea spătarului înainte - mișcarea spătarului înapoi - revenirea fotoliului la poziția inițială

- salvarea și revenirea repetată a pozițiilor de lucru a fotoliului - regim de blocare a sensorului funcțiile de umplere pahar și curățire bol scuiptoare să fie la masa medicului sau de la masa asistentei Indicator cu lumina a puterii rot/min de la 0 % pînă la 100 % Brațul asistentului **(5.3.1 pagina 80)** cu butoane de comandă încorporate. - umplerea paharului cu apa - clătirea scuiptoarei cu apa - mișcarea fotoliului în sus - mișcarea fotoliului în jos - mișcarea spătarului înainte - mișcarea spătarului înapoi - regim de blocare a sensorului pentru a facilita dezinfectarea sau echivalent funcțional. Reglare a puterii de aspirare, Dotat cu filtru pentru particule mari, tip

<p>echivalent, ușor detașabil. - Filtru de particule mari - Suportul cu bol are posibilitatea de a se roti în jurul axului de la 0 până la 45 grade – spre pacient și de la pacient - Clătitor pentru bol, mobil și detașabil - Umplutor a paharului cu apă din inox sau ale materiale anticorozive mobil și detașabil - Posibilitatea programării volumului de apă turnată în pahar de la 1 sec – pina la 20 sec -Volumul pentru apă distilată minim 1L</p>	<p>detașabil Puterea de aspirare minim 0.5 l/min Reflector Stomatologic Xenos – instrucțiuni separate (vezi anexa) Brațul dublu articulat, Braț pantografic balansat, Două axe de rotație, în plan vertical și orizontal</p> <p>Caracteristica tehnică a reflectorului: să ofere posibilitatea de a lucra cu materialele fotopolimerizabile, neaccelerând polimerizarea materialelor Lumina concentrată într-un dreptunghi cu dimensiunile de minim 70x140 mm la distanță optimală de 70 cm ±5 de focusare. Iluminare de la minim 8000 lux.</p> <p>Pedala electrică multifuncțională (5.6 pagina 92) cu fir Comanda instrumentelor prioritare Reglarea puterii micromotorului prin actionare mecanica a butonelor de control Buton separat pentru mișcarea fotoliului sus-jos, coborîre-ridicare spătar Butoane separate pentru: - Selectarea programelor de poziționare a pacientului în fotoliu - Activarea poziționării selectate a pacientului - Pentru activare / deconectare răcire spray pentru instrumente - Revers pentru micromotor</p> <ul style="list-style-type: none"> - Pentru funcția seringă la turbină și micromotor - Reglare lentă a rotațiilor micromotorului <p>Blocul hidraulic</p> <ul style="list-style-type: none"> - Bol din sticlă ceramic sau material echivalent, ușor detașabil. - Filtru de particule mari 6.4.3 – 6.4.4 pagina 121 - Suportul cu bol are posibilitatea de a se roti în jurul axului de la 0 până la 45 grade – spre pacient și de la pacient - Clătitor pentru bol, mobil și detașabil 5.2.5 pagina 79 - Umplutor a paharului cu apă din inox sau ale materiale anticorozive mobil și detașabil - Posibilitatea programării volumului de apă turnată în pahar de la 1 sec – pina la 20 sec 4.5 pagina 37 -Volumul pentru apă distilată 1,3L 5.2.3 pagina 76
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SIMPLE USER GUIDE

FOR

CHAIR PRO

Rev.: 1.1
Date: 01/07/2024

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1 Chair

There can be two chair constructions.

The chair in the basic version, where the seat does not have cradle function when the back-rest is moved. The chair in the version, where the seat does cradle function when the back-rest is moved.

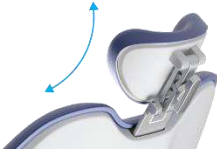
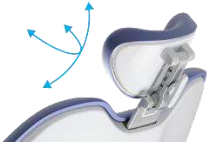
I. Both chair constructions reach the Trendelenburg position.

1.1 Chair control

The Chair Pro is controlled by the foot controller.

1.2 Head-rest control

The mechanism for the head-rest position setting can be in three versions.

	Head-rest	Direction of movement	Securing the position
1.	2D MECHANICAL 	Forwards / Backwards	Mechanically by turning the lever.
2.	3D MECHANICAL 	Forwards / Backwards To the sides	Mechanically by turning the lever.

- The mechanical head-rest incline is set by releasing the lever located on the back of the head-rest. After reaching the desired position, the back-rest must be locked again with the lever.
- The pneumatic head-rest incline is set by pressing the pneumatic brake button. When the desired position is reached, release the pneumatic brake button.
- Height setting is performed mechanically, by pulling or pressure in the direction of the setting.

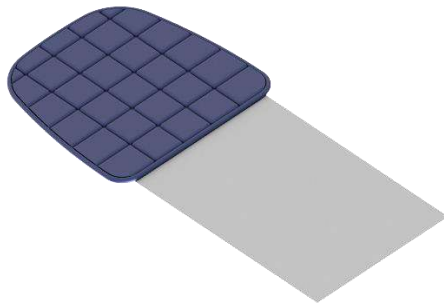


1.3 Protective seat, child booster seat



When working with a patient, we recommend using an external protective cover for the head-rest.
The protective sleeve protects the upholstery from damage by hair products. Complaints may not be accepted in case of damage to the head-rest by hair products.

For greater comfort of the patient and increased possibility of chair hygiene, a protective seat is available. A child seat is available to adapt the chair for a child patient.



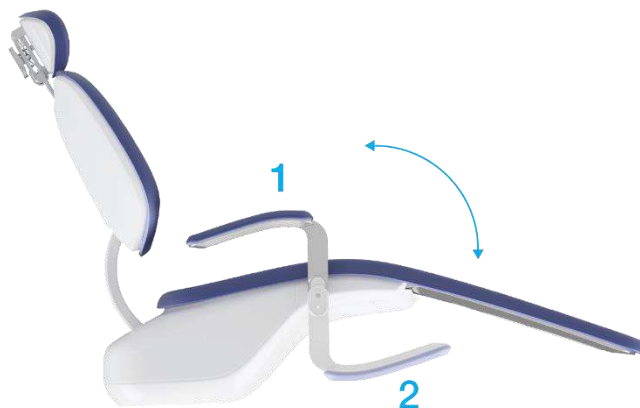
Protective seat



Child booster seat

1.4 Hand-rest

The folding hand-rest can be folded backward (movement no. 1) or folded forward (movement no. 2).

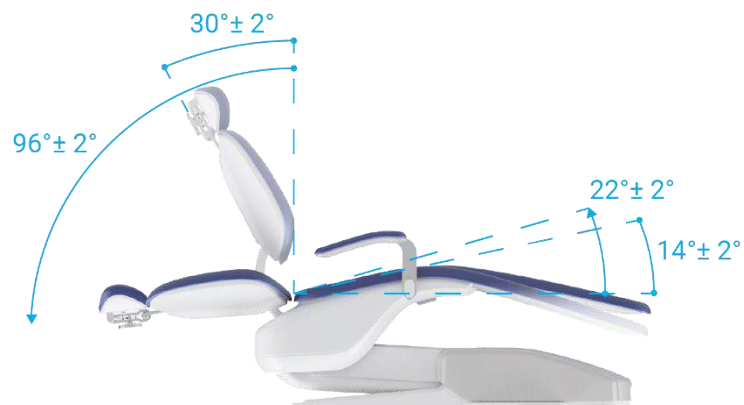


1.5 Cradle function range

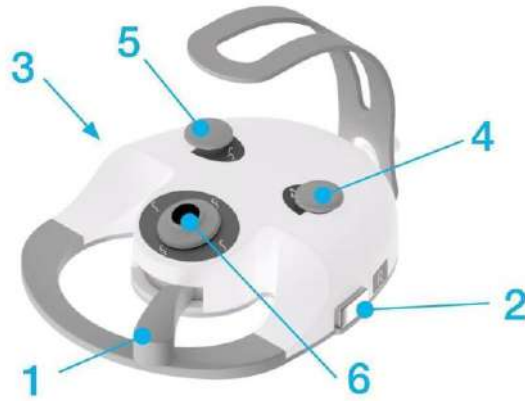
Cradle function range of the backrest and seat in basic version – without cradle function.



Cradle function range of the backrest and seat in the version with cradle function.



2 Foot controller



Foot controller`s buttons:

- | | |
|-------------------------------------|---|
| 1. Lever, | 4. Recall of the chair program positions, |
| 2. Right side button – no function, | 5. The chair entry position, |
| 3. Left side button – no function, | 6. Joystick for the chair control. |
-

Controlling the chair

By moving the joystick (6) it is possible to control the basic movements of the chair up, down, back-rest up, back-rest down.







The chair entry position

By pressing the button (5) the chair entry position is recalled.

Foot controller lever

Lever (1) is used for starting and regulating the rotary instrument revolutions and for starting and regulating the power of the scaler. The foot controller lever has no use for a separate chair.

2.1 Symbols on the foot controller

Symbol	Description	Symbol	Description
	Chair up		Chair down
	Backrest backward		Backrest forward
	Chair entry position		Programming and recalling the positions of the chair

2.2 Recalling the chair program positions

Program position no. **1** is recalled by pressing the button **(4)** and subsequent by moving the joystick upwards.

Program position no. **2** is recalled by pressing the button **(4)** and subsequent by moving the joystick downwards.

Program position no. **3** is recalled by pressing the button **(4)** and subsequent by moving the joystick to the left.

Program position no. **4** is recalled by pressing the button **(4)** and subsequent by moving the joystick to the right.

2.3 Programming the chair program positions by separate chair

Program position no. **1** is programmed by pressing and holding button **4** (there will be a sound), and then moving the joystick up. After saving the position, the sound will be heard again - 4 x beeps

Program position no. **2** is programmed by pressing and holding the button **4** (there will be a sound), and then by moving the joystick downwards. After saving position, there will be a sound again - 4 x beeps

Program position no. **3** is programmed by pressing and holding the button **4** (there will be a sound), and then by moving the joystick to the left. After saving position, there will be a sound again - 4 x beeps

Program position no. **4** is programmed by pressing and holding the button **4** (there will be a sound), and then by moving the joystick to the right. After saving position, there will be a sound again - 4 x beeps

*i. The second pressing movement of the joystick must occur within three seconds after pressing the button **(4)** otherwise the position will not be programmed.*

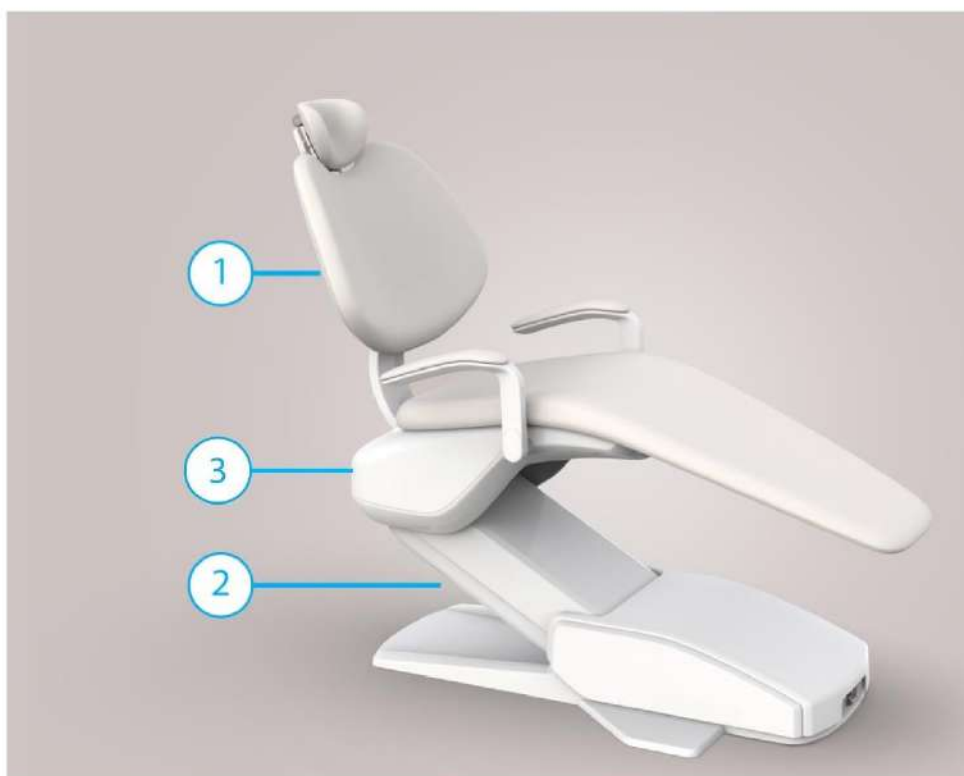
2.4 Charging the battery of the wireless foot controller

- **Charging via the connection cable with the chair:**

Connect the connecting cable to the foot control connector and then connect the other connector to the connector in the chair.



3 Safety sensors



	Part of the chair	Sensor activation	Unblocking the sensor
1.	BACKREST	If the backrest is in a collision as it moves downward	Removal of the blocking object
2.	CHAIR	If the chair is in a collision as it moves downward	Removal of the blocking object
3.	SEAT COVER	If the seat cover is in a collision as it moves	Removal of the blocking object

Simple user guide for Diplomat Dental units

Model ONE 100 (DC 290, TYGI 200 B)

Model ONE 200 (DL 290, TYGI 200 L)

Date: 01/07/2025

Revision: 2.3

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1 Product information

This user guide describes how to use the Diplomat dental unit **Model ONE 100** (DC 290, TYGI 200 B), **Model ONE 200** (DL 290, TYGI 200 L).
Please read this guide before first use.

Intended purpose of dental unit:

Dental unit is specified to support and position the patient and to administer necessary supply for instruments and for performing the dental treatment of the patient by the dentist. A dental unit is a device consisting of a system of structural units, equipment and instruments that form a functional unit for dental treatment.

Use of the unit is only permitted for a trained dentist who has read these instructions for use in detail. Installation, setting and any modifications must be performed by a qualified authorized service technician who is authorized to perform this activity. Conditions for the media used and installation specified in this **user guide** must also be met.

1.1 Product description

Model ONE 100 is by chair carried dental unit. Model ONE 200 is stationary dental units with an integrated chair. Both models of dental units consist of the same functional parts.

The pantographic dentist's table arm and pantographic light arm are attached to the top of the cuspidor block post. The dentist's table is equipped with a keyboard with display used to control the unit functions. Rotary instruments and the scaler are controlled using a foot controller. The bowl on the cuspidor block is adjusted manually only.

The assistant's arm may be equipped with a saliva ejector, a large and small aspirator, syringe, polymerizing lamp and intra oral camera. The tray table on the pantographic light arm and the arm for the LCD monitor are installed as optional accessories.

Product	Leading of instrument hoses	Number of instruments	Assembly
Model ONE 100	upper/lower	5	carried
Model ONE 200	upper/lower	5	stationary

Parts of the unit in contact with the patient:

- Chair seat
- Backrest
- Headrest
- Hand-rest
- Instruments
- Aspirators

Instrument equipment at dentist's element:

- Syringe
- Rotary instruments (together max. 3):
 - Turbine (max. 3)
 - BLDC micro-motor (max. 2)
- Ultrasonic scaler
- Polymerizing lamp

Instrument equipment at assistant's element:

- Saliva ejector
- Small suction hose, big suction hose
- Syringe
- Polymerizing lamp

i. All instruments except the polymerizing lamp may be equipped with a light.

i. Optional accessories (see the valid price list)

Indications, contraindications for the medical device:

Indications: Dental units are intended to be used for patients who require dental treatment or care of an illness in the oral cavity.

Contraindications: none known

Clinical benefits: The dental unit enables routine oral hygiene procedures, restorative dental treatments or preventive care treatments.

Patient profile:

- Age: adult population, children age 3 and above
- Load capacity of the unit: up to a patient weight of 200 kg
- Medical condition:
 - During the examination, the dentist will determine the suitability of the treatment and rule out the occurrence of contraindications for the patient.
- Nationality: not applicable

Body part or type of tissue: patient's oral cavity

Intended users: Dentist and Medical assistant



Do not use the medical device if it is suspected of being damaged or malfunctioning. Contact an authorized service technician.

Any serious incident that has occurred in relation to the medical device should be reported to the manufacturer and the competent authority of the Member State in which the user or patient is established.







1.2 Technical parameters

Dental unit	Value
Supply voltage:	220 - 240 V ~ 100 - 127 V ~ 24 V ~
Frequency:	50/60 Hz
Max. input:	400 VA
Connection with tablet - Bluetooth® (Model PRO):	2.402 GHz – 2.480 GHz
Inlet air pressure:	0.45 - 0.8 MPa
Inlet water pressure:	0.3 - 0.6 MPa
Netto weight of the unit Model ONE 100	190 + max. 50 kg
Netto weight of the unit Model ONE 200	165 + max. 50 kg
Netto weight of the unit Model PRO 500, 700	220 + max. 60 kg
Netto weight of the unit Model PRO 600, 800	210 + max. 50 kg
Type of protection against electric shock:	class I protection device
Degree of protection against electric shock:	applied parts B
Degree of protection by cover:	IP21
Water temperature for the cup (if heater is installed):	35 °C ±5°C
Load capacity of the storage table on the lamp post:	
• 290 x 370 mm	1.5 kg
Load capacity of the dentist's element tray table:	
• 290 x 370 mm (various designs)	0,5 kg
• 2 x 290 x 370 mm (double tray table)	1 kg
Mode of operation:	Permanent with intermittent loading typical of standard dental work.




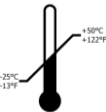






Chair	Value
Seat height range above the ground.	
• Model PRO 500, PRO 700, ONE 100:	380 mm - 815 mm \pm 20 mm
• Model PRO 600, PRO 800, ONE 200:	350 mm - 820 mm \pm 20 mm
Cradle function range of the back-rest from the vertical plane.	
• With cradle function:	30° \pm 2° to 96° \pm 2°
• Without cradle function:	29° \pm 2° to 86° \pm 2°
The seat cradle function from a horizontal plane in the version without cradle function:	12° \pm 2°
The seat cradle function ranges from a horizontal plane in the version with cradle function:	14° \pm 2° to 22° \pm 2°
Vertical movement in the unloaded state:	max. 19 s
Backrest motion when unloaded	max. 13 s
Seat recline (with cradle function) when unloaded	max. 13 s
Chair load capacity (EN ISO 7494-1):	max. 200 kg
Mode of operation:	1:9
Chair noise:	max. 54 dB

1.3 Used symbols

1.3.1 Symbols used in user manual










Symbol	Description	Symbol	Description
	Warning, Notice, Caution		CE marking - the product meets EU legislative requirements.
	Note		Electromagnetic radiation
	Manufacturer		The device is a hazardous waste - hand it over in a collection point.

1.3.2 Symbols used on the packaging

Symbol	Description	Symbol	Description
	This way up		Fragile, handle with care
	Keep away from rain		Temperature limits
	Stacking limits by number		Stacking limits by mass
	Recycle symbol - corrugated cardboard		Recycle symbol - steel
	Recycle symbol - low-density polyethylene		Recycle symbol - wood

	Recycle symbol - polyvinylchloride		Dispose of the used packaging in the appropriate waste container
	Humidity limitation		The device is classified as hazardous waste - hand it in at the collection yard
	Mark of compliance with the national standards of the Russian Federation		Mark of compliance with the national standards of the Republic of Ukraine

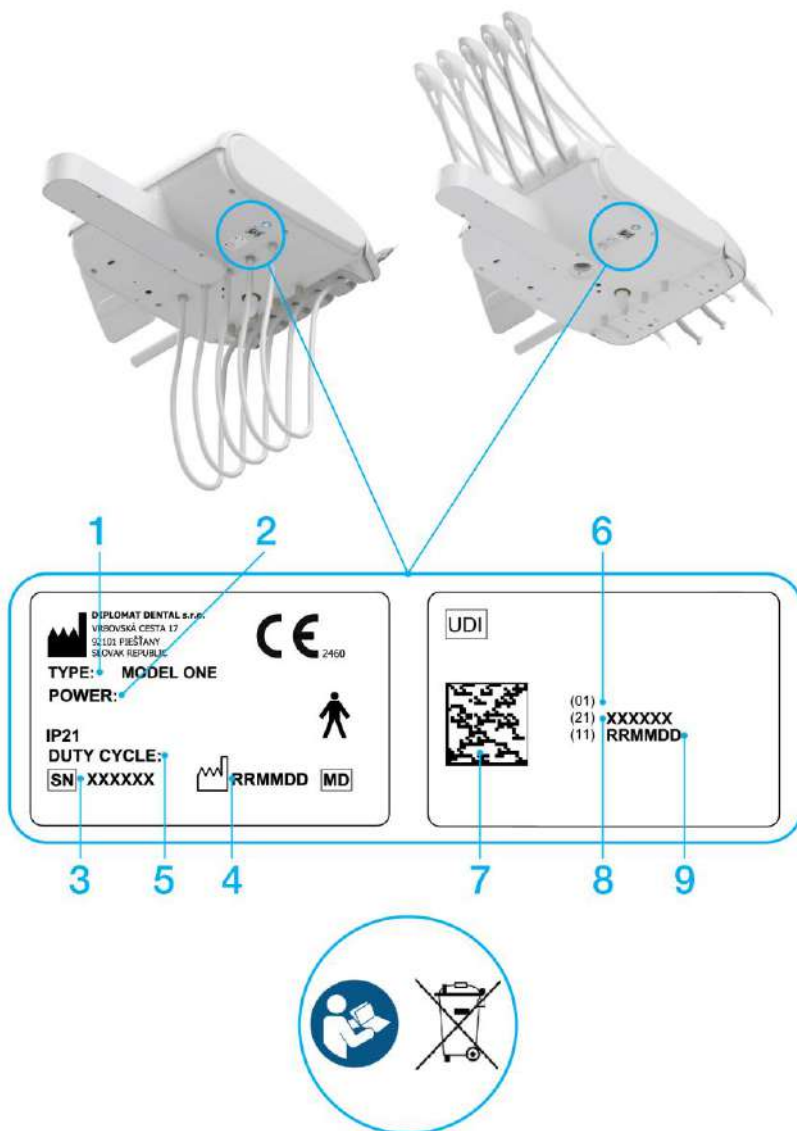
1.3.3 Symbols used on labels

Symbol	Description	Symbol	Description
	Manufacturer		Type B attaching part
	Serial number		CE marking - the product meets EU legislative requirements
	Manufacturing date		The device is a hazardous waste - hand it over in a collection point
	Follow the Instructions for use.		Medical device
			Unique Device Identifier

1.4 Location of labels

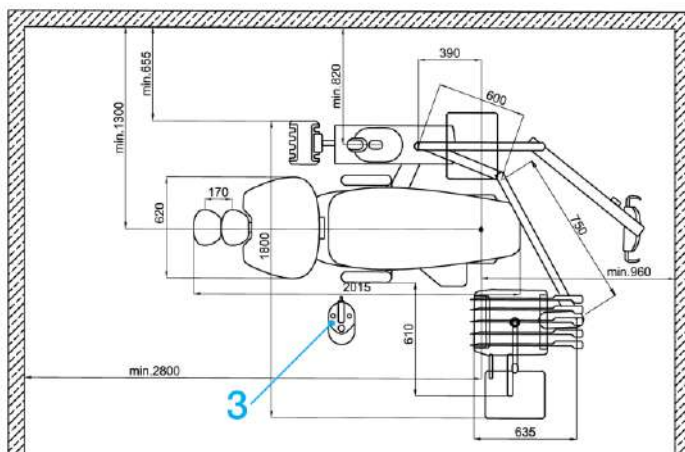
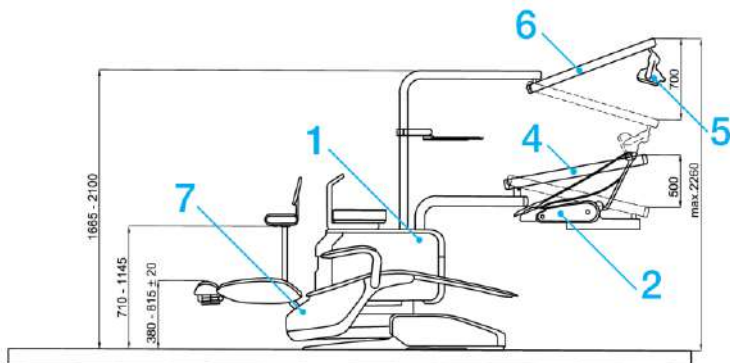
Label description:

- | | |
|---|-------------------|
| 1. Identification of dental unit production | 6. GTIN number |
| 2. Basic electrical parameters | 7. GS1 datamatrix |
| 3. Serial number | 8. Serial number |
| 4. Date of made | 9. Date of made |
| 5. Chair operation mode | |

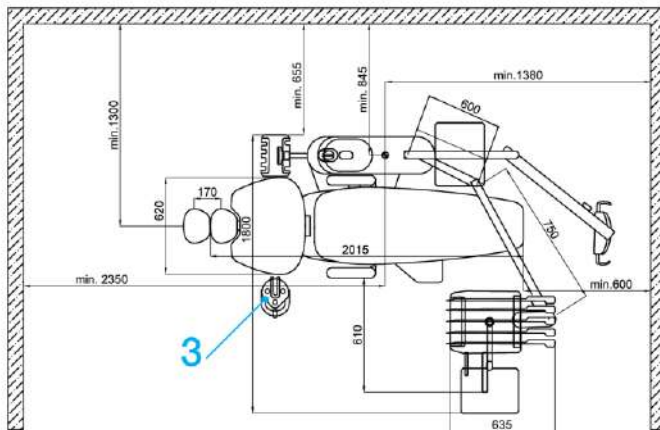


2 Main parts of the dental unit

2.1 Carried dental unit - Model ONE 100

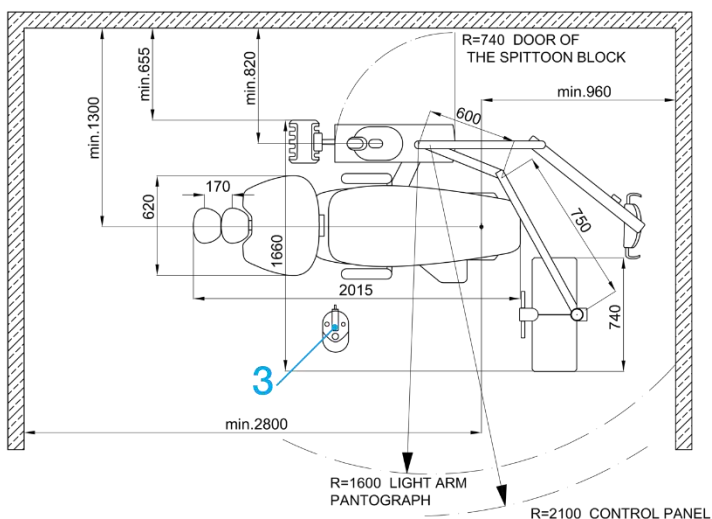
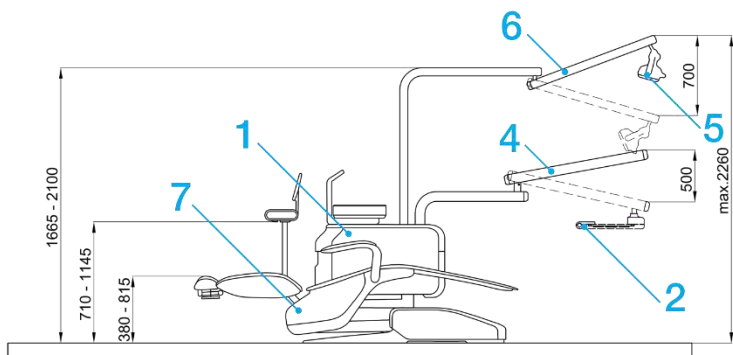


- | | |
|--|--------------------------|
| 1. Cuspidor block with assistant's element | 5. Operating lamp |
| 2. Dentist's control panel | 6. Pantographic lamp arm |
| 3. Foot controller | 7. Dental chair |
| 4. Dentist's control panel pantograph | |



- EN_UM_Model_ONE_2025_07_rev_2.3

2.3 Carried dental unit – Model ONE 100 ORTHODONTICS



- | | |
|--|--------------------------|
| 1. Cuspidor block with assistant's element | 5. Operating lamp |
| 2. Tray table | 6. Pantographic lamp arm |
| 3. Foot controller | 7. Dental chair |
| 4. Tray table pantograph | |

3 Product installation and assembly



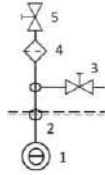
Pre-installation and installation must be performed pursuant to the standards applicable in the given country and in accordance with the manufacturer's documentation.

To prevent the risk of electrocution, this equipment must be connected to an electrical system with a protective ground. Do not install this equipment in any environment with an explosion hazard! Do not modify this equipment without permission from the manufacturer!

3.1 Installation requirements

Floor	Concrete slab ≥ 100 mm. Inclination $\leq 1\%$. Anti-static flooring is preferred. The media connections are located in the installation hole with dimension 225 x 280mm (Model ONE 100) and 200 x 160mm (Model ONE 200). The detailed layout is shown in the installation plan.										
Water	<p>Drinking water from a central supply:</p> <table><tr><td>Inlet pressure</td><td>0,3 - 0,6 MPa</td></tr><tr><td>Flow</td><td>> 5 l/min</td></tr><tr><td>Particles:</td><td>smaller than 50 μm</td></tr><tr><td>Water hardness</td><td>< 2,14 mmol/l</td></tr><tr><td>pH</td><td>6,5 – 8,5</td></tr></table> <p><i>i. The unit is equipped with a 50 μm filter.</i> <i>Water must comply with local drinking water regulations.</i> <i>We recommend CU pipes, or PE respectively.</i> <i>i. The same requirements apply to distilled water, if it is used.</i></p>	Inlet pressure	0,3 - 0,6 MPa	Flow	> 5 l/min	Particles:	smaller than 50 μm	Water hardness	< 2,14 mmol/l	pH	6,5 – 8,5
Inlet pressure	0,3 - 0,6 MPa										
Flow	> 5 l/min										
Particles:	smaller than 50 μm										
Water hardness	< 2,14 mmol/l										
pH	6,5 – 8,5										
Cooling of instruments with the central water supply	In the central water supply, a shut-off valve and a valve are included for the unit to prevent water back-flow.										
Requirements and recommendations:	<ul style="list-style-type: none">• If water from a central supply is used to cool the instruments, it is necessary to have a particulate filter upstream at the water inlet (5 μm).• If water contains more than 50 mg CaO/l or 36 mg MgO/l, a water hardness treatment device must be included and connected to the water inlet. Hard water can cause malfunction of the unit. The water hardness treatment device is pre-fixed when distilled water is not used.• When required to install a connection point for inlet water sampling, the following diagram shows the recommended location of the connection point for inlet water sampling. <p>This equipment is not included with the dental unit.</p>										

**Connection schematic
for dental unit inputs
(EN ISO 7494-2)**



1. Water inlet from the external potable water source
2. Water inlet connection port
3. Water inlet sampling port
4. Water filter for solid particulate
5. Manual inlet valve

i. Regular inspection and replacement of the water filter must be carried out in 3-month intervals. Inspection and replacement are performed by an authorized service technician.

Pressed air

Compressed air must be oil-free, clean and dry

Inlet pressure 0.45 to 0.8 MPa
Flow: > 55 l/min

Recommended values

Class for oil 2 oil max. 0,1 mg/m³
Class for particles 2 particles 1-5 µm max. 100/m³
Humidity class 4 pressure dew point is max. 3°C at 20°C average temperature and at 0.7 MPa constant pressure in the system
(equivalent to atmospheric dew point max 21°C)

i. Dental unit is equipped with a 20 µ inlet filter.

**Suction (if equipped
with a cuspidor block
with large and small
aspirators)**

Static vacuum must be within a range of min. 0.005 MPa (50 mbar) to max. 0.02 MPa (200 mbar) measured at the point of installation. If a static vacuum is higher than 0.02 MPa, a calibration (regulator) valve must be connected into the vacuum line to restrict the vacuum to a maximum of 0.02 MPa. This regulator valve is not included with the dental unit. The vacuum unit must supply flow of min. 450 NI/min. (type 1). Measured at the point of installation.

**Pressure loss between
the vacuum
connection point
at the dental unit and
the atmospheric end
of the cannula:**

Flow [NL/min]	Vacuum [mbar]	
	Large aspirator	Small aspirator
90	57	53
150	67	62
200	79	74
250	110	91
300	130	100
350	170	120

Waste

The waste pipe must have a continuous slope of min. 1% with a minimum flow rate of 10 l/min. and must be free of sharp bends and conditions that could cause back-flow. Do not use the same waste branch with another dental unit or washbasin! It is permitted to use polypropylene or hardened polyethylene pipes.



If the regulations in the country of installation require an amalgam separator, a dental unit with a cuspidor block without an amalgam separator must be connected to an external amalgam separator.
The external amalgam separator installation must comply with its manufacturer's instructions.

3.1.1 Electrical requirements

Value of the recommended mains fuse

The recommended value of the power supply fuse is 16 A (in the case of using a circuit breaker - circuit breaker with tripping characteristic type C). No further clinical devices may be connected to the dental unit supply! The maximum electrical input of the dental unit is 400 VA. The supply must comply with the corresponding national standard.

Recommendation

Unless the national standard states otherwise, the manufacturer prescribes the use of a current protector with the sensitivity of 30 mA. After meeting the pre-installation requirements, the dental unit will be assembled and mounted and connected to the media.

Mutual interference

During its operation, the dental unit does not affect the operation of other electronic apparatuses in its vicinity.

3.1.2 Operational requirements

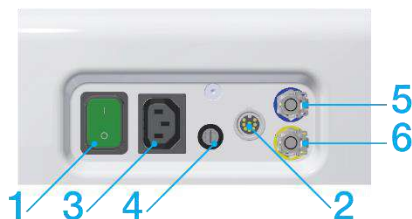
Parameter	Value
Ambient temperature	15 – 40 °C
Relative humidity	30 – 75 % non-condensing humidity
Atmospheric pressure	700 – 1060 hPa
Altitude	≤ 3000 m

3.1.3 External media connection

Model ONE 100



Front powerblock panel

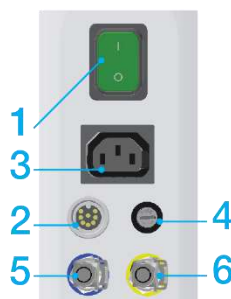


Front powerblock panel with external connectors

Model ONE 200



Front powerblock panel



Front powerblock panel with external connectors

1. On/Off button
2. Foot controller connector
3. Socket for 230V

4. Fuse holder
5. Air connector
6. Water connector

3.2 Installation and assembly

i. Installation must be performed by a service technician with a valid certificate. Otherwise, the warranty will not be honoured. Complete the registration form and send it to the manufacturer or the dealer.

Unpacking and inspecting the delivery

Check to ensure the shipping box is intact. If the box is compromised, do not open the consignment and immediately report the problem to the carrier or seller. Carefully remove the box if the consignment is intact and unpack the individual parts of the dental unit. Check the consignment to ensure it is complete against the **packing sheet**.

i. Do not stress the articulated dentist's table arm, except for standard movement of the arm and the loading permitted on the tray table.



If an installation plate is used to install the unit, we recommend sealing the plate to the floor using a transparent silicone adhesive. Otherwise, damage may occur that will not be covered by the warranty.



The detailed installation and assembly procedure for the dental unit is not the subject of these instructions for use.

3.3 Commissioning the dental unit



Disinfection of a new dental unit before its first use.

Before putting the new unit into operation, the waterways of the instruments must be disinfected by a service technician, according to the instructions given in the Installation manual.

Switch-on the unit:

Check to ensure the instruments are all in their designated holders and ensure the foot controller is in the idle position and no keypad buttons are depressed when turning on the unit.

1. Switch-on the compressor
2. Open the central water supply
3. Switch-on the vacuum unit
4. Switch-on the main power switch on the unit

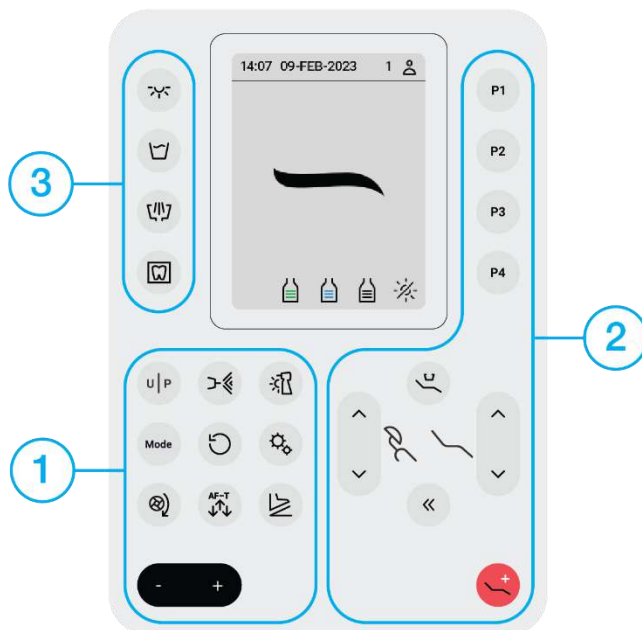
The unit is ready for use once an audible tone is heard.

If the unit is equipped with a water heater, the water is heated to the temperature set-point in approximately 10 minutes.

4 Dental unit control

4.1 User interface description











4.1.1 Control panel ONE plus



The control panel keyboard is divided into three groups of buttons:

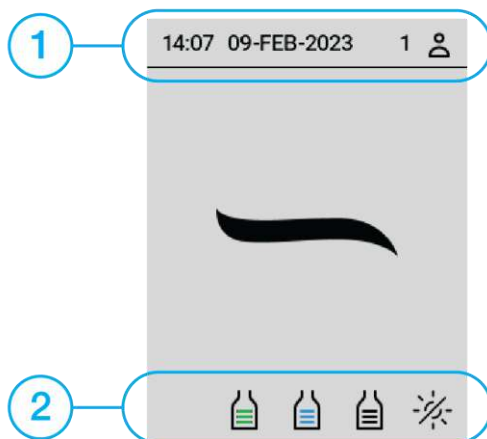
1. Buttons for the instrument settings,
2. Buttons for the chair and instrument programming, chair control,
3. Buttons for light control, cup filling, bowl rinsing and negatoscop control.

Button	Description	Button	Description
	Main light		Moving the chair up
	Cup fill		Moving the chair down
	Spittoon bowl rinse		Moving the backrest up
	Negatoscop		Moving the backrest down
	User / Program change		Chair zero position
	Instrument cooling		Chair rinsing position

	Instrument light	P1	Programmed chair position 1
	Instrument mode	P2	Programmed chair position 2
	Rotation direction	P3	Programmed chair position 3
	Gear ratio	P4	Programmed chair position 4
	Torque		Trendelenburg chair position
	Auto-forward time		Value decrease
	Foot controller function		Value increase



















4.1.2 Home screen on the ONE plus display

The home screen appears when all instruments are in basic position:

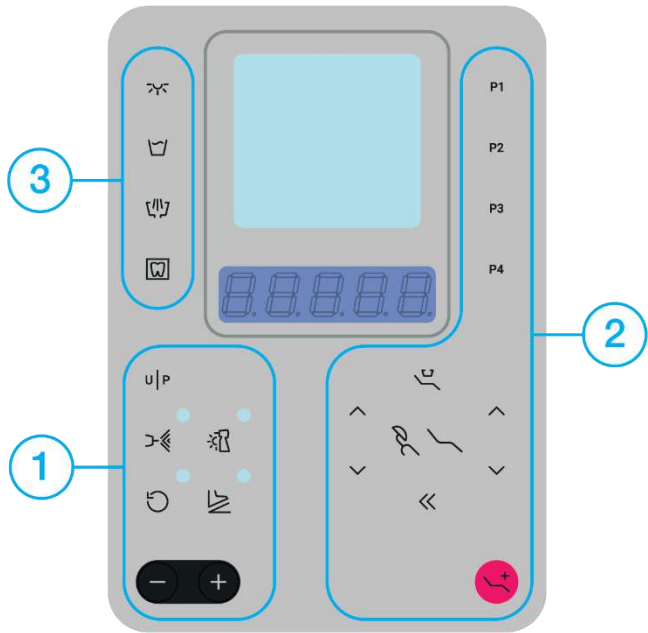


1. Time,
Date,
User profile identification.
2. Decontamination solution amount indicator (100 %),
Disinfection solution amount indicator (100 %),
Source of distilled water (100 %).
Main light indicator (off)

Alternatives to the icons displayed on the home screen:

Icon	Description	Icon	Description
Alternative icons for decontamination solution amount indicator:			
	Amount of decontamination fluid 100%		Amount of decontamination fluid 60%
	Amount of decontamination fluid 30%		Amount of decontamination fluid EMPTY
Alternative icons for disinfection solution amount indicator:			
	Amount of disinfection fluid 100%		Amount of disinfection fluid 60%
	Amount of disinfection fluid 30%		Amount of disinfection fluid EMPTY
Alternative icons for distilled water amount indicator / cooling water source:			
	Distilled water for instruments cooling 100%		Distilled water for instruments cooling 60%
	Distilled water for instruments cooling 30%		Distilled water for instruments cooling EMPTY
	No water source for instruments cooling		Central water for instruments cooling
Alternative icons for main light indicator:			
	Main light high intensity		Main light low intensity
	Main light off		Anti-polymerization mode (only for Sirius lamp)











4.1.3 Control panel ONE



The control panel keyboard is divided into three groups of buttons.

- 1. Buttons for the instrument settings,
- 2. Buttons for the chair and instrument programing, chair control,
- 3. Buttons for light control, cup filling, bowl rinsing and negatoscop control

Button	Description	Button	Description
	Main light		Moving the chair up
	Cup fill		Moving the chair down
	Spittoon bowl rinse		Moving the backrest up
	Negatoscop		Moving the backrest down
	User/ Program change		Chair zero position
	Instrument cooling		Chair rinsing position

	Instrument light		Programmed chair position 1
	Foot controller function		Programmed chair position 2
	Rotation direction		Programmed chair position 3
	Trendelenburg chair position		Programmed chair position 4
	Value increase		Value decrease

4.1.4 List of messages on the ONE seven-segment display

Action	Displayed data	Description
Turning on the DU	n ONE	Welcome
	usr 2	Display of the current user (2 is the current user number)
Getting DU ready for use	ready	DU ready for use
Pulling out the micromotor	n 1	Micromotor 1
	n 2	Micromotor 2
Pulling out the turbine	t 1	Turbine 1
	t 2	Turbine 2
	t 3	Turbine 3
Pulling out the Scaler	sc P2	Scaler
Pulling out the SATELEC XINETIC scaler	SAt	SATELEC XINETIC scaler
Pulling out the SATELEC NEWTRON scaler	SAt n	SATELEC NEWTRON scaler
Pulling out the WOODPECKER scaler	UJ P2	WOODPACKER scaler
Activation of SCALING mode	SCALE	SCALING mode activated

Activation of GENERIC mode	GEneR	GENERAL mode activated
Activation of ENDO mode	EndO	ENDO mode activated
Activation of PERIO mode	PER IO	PERIO mode activated
Activation BOOST mode	boOSt	BOOST mode activated
Recalling the memory position of the chair	POS 1	1 st position
	POS 2	2 nd position
	POS 3	3 rd position
	POS 4	4 th position
Remembering the memory position of the chair	SAUEd	1 st position
	SAUEd	2 nd position
	SAUEd	3 rd position
	SAUEd	4 th position
	tREnd	Trendelenburg chair position
	S It	Chair zero position
	SP It	Chair rinsing position
Switch user	USr 1	User 1
	USr 2	User 2
Remembering user settings	SAUEd	Saved user settings
	SAUEd	Saved user settings
Calling up tool settings from the program	P 1	Currently using Program 1
	P 2	Currently using Program 2
	P 3	Currently using Program 3

	P 4	Currently using Program 4
Saving tool settings to the program	SAVED	Program 1 is saved
	SAVED	Program 2 is saved
	SAVED	Program 3 is saved
	SAVED	Program 4 is saved
Water cooling activation	W	Water cooling activated
Spray cooling activation	S	Spray cooling activated
Air cooling activation	A	Air cooling activated
Instrument using	40000	Current intensity/speed value
	100	Current intensity/speed value
	10	Current intensity/speed value

4.1.5 List of error messages on the ONE seven-segment display

Action	Displayed data	Solution
Active backrest safety sensor	C4 102	Remove the obstacle defending the movement of backrest
Active seat lift safety sensor	C4 10 1	Remove the obstacle defending the movement of chair
Active safety sensor of assistant's arm	C4 103	Remove the obstacle defending the movement of assistant's arm
Error user chair invalid position	04 130	It is necessary to program the position
Error – bowl collision	04200	Turn the bowl back to the basic position
Error user water missing	04300	Add the missing water
Error user hygiene water tenso calibration	04C04	It is necessary to calibrate the tenso gauge
Error user hygiene disinfection tenso calibration	04C05	It is necessary to calibrate the tenso gauge
Error user hygiene decontamination tenso calibration	04C06	It is necessary to calibrate the tenso gauge



4.2 Users



User interface can manage two user profiles. This allows users to operate the dental unit without losing individual settings.

To change the user profile:

1. All instruments are in basic position on the dentist control panel.

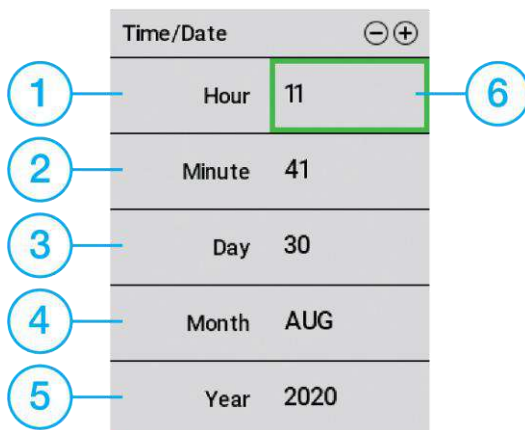
2. Press the button  to change the user profile.

3. The active user profile  /  is displayed on the ONE plus control panel screen.

The active user profile  1 /  2 is displayed on ONE control panel display.





4.3 Time/Date

i. Only available for control panel ONE plus.



- | | |
|-----------|--|
| 1. Hour | 4. Month |
| 2. Minute | 5. Year |
| 3. Day | 6. Indication of a value that can be changed |

To set time and date:

1. All instruments are in basic position on the dentist control panel.
2. Press the button  to display the screen for time, date setting.
3. Press the button  to set the value.
4. Press the button  to move to next line, (the green frame moves one line down).
5. Press the button  to leave the time/date screen.

4.4 Main lamp

The lamps can be operated in two modes - levels of lighting intensity. In the mode with a higher Full lighting intensity, it is possible to set the lighting intensity range of more than 26,000 lx in the case of the Xenos lamp. In the case of the Faro Maia LED lamp, the range is up to 38,000 lx.




In the mode with reduced lighting intensity, it is from 7,000 lx to 8,000 lx for both lamp models.

4.4.1 Light control

The light can be controlled:

- from the keypad on the dentist element
- using the sensor on the main lamp
- from the button on the assistant's table keypad, if equipped

Light control from keypads:



1. Press the button  to switch on the light. The light shines at the upper operating light intensity.
2. Press the button  to toggle between dimmed and upper operating light intensity.
3. Press and hold the button  to switch off the light.

Light control using the sensor on the main light:

1. To switch on the light, keep your hand in front of the sensor until it beeps. The light shines at the upper operating light intensity.
2. To switch the light between lower dimmed light intensity and upper operating light intensity, keep your hand in front of the sensor until it beeps again.
3. To switch off the light keep your hand in front of the sensor until a double beep will sound.

The light intensity setting:



To set the light intensity:

1. All instruments are in basic position on the dentist control panel.
2. The light shines at the upper operating light intensity.
3. Press buttons  to decrease and increase the operating light intensity.
4. The light shines at the lower dimmed light intensity.
5. Press buttons  to decrease and increase the dimmed light intensity



Both light intensities that have been set are memorized automatically.

Each user can have their own light settings.



4.5 Cup fill

- Press the button  to start the cup filling.
- Press the button  during the cup filling process to stop the cup filling.



Programming of cup filling time:

1. Press and hold the button  to set the time of cup filling.
2. Release the button  during the cup filling time setting to save the cup filling time.



4.6 Spittoon bowl rinse

- Press the button  to start the spittoon bowl rinsing.
- Press the button  during the rinsing process to stop the spittoon bowl rinsing.

Programming of spittoon bowl rinsing:





1. Press and hold the button  to set the time of spittoon bowl rinsing.
2. Release the button  during the rinsing time setting to save the spittoon bowl rinsing time.

4.7 Negatoscop

1. Press the button  to switch on the negatoscop mode of the display.
2. To switch off the negatoscop mode press the button  when negatoscop mode is active.

4.8 Chair control

4.8.1 Chair height and backrest position settings

- Press and hold the button  to move the chair up.
- Press and hold the button  to move the chair down.
- Press and hold the button  to move the backrest up.
- Press and hold the button  to move the backrest down.



4.8.2 Programmed chair positions

i. Automatic chair movement may be stopped by pressing any chair control button, except the one, that was used for recall position.



i. The chair's Trendelenburg position may not be changed.

Four chair positions may be programmed.

Using a programmed chair position

Press the chair program button  to  to activate the chair to move it into the programmed position.

Saving a programmed chair position


1. Set the required chair position.
2. Press and hold the program button  to  to save the current chair position.
3. A sound signal confirms the saving of the position.

4.8.3 Chair rinsing position






When the chair's rinsing position is called up, the cup is filled. In this case, the sensor does not detect the level, it is necessary to check the filling of the cup to prevent overflow.

Calling up the chair's rinsing position

- Pressing the button  activates the chair's movement to the programmed rinsing position.

Programming the chair's rinsing position.


- Pressing and holding the button  enables programming of the rinsing position - after an audible signal sounds.
- Hold down the button  and press the button  at the same time to set the desired chair position.
- An audible signal confirms that the position has been saved.

4.8.4 Last position









When the last chair position before the rinsing position is called, the bowl rinsing is started. When the position is changed manually, the bowl rinsing is not started.

Calling the last chair position before the rinsing position.

- Pressing the button  activates the movement of the chair to the last chair position before the rinsing position.

Programming the last chair position before the rinsing position with bowl rinsing.

- Pressing and holding the button  enables programming of the last chair position before the rinsing position - after an acoustic signal sounds.
- By holding down the button  and pressing the button  at the same time, to set the bowl rinsing, set the desired chair position.

By holding down the button  and pressing the button  and  at the same time, to set the bowl rinsing and cup filling, set the desired chair position.

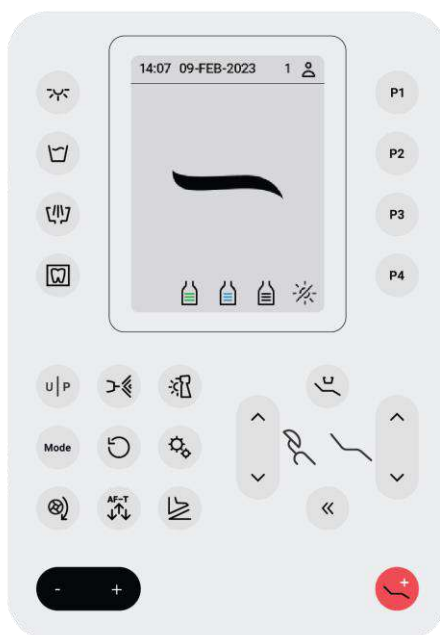
- An acoustic signal confirms that the position has been saved.

4.9 Instrument control - control panel ONE plus

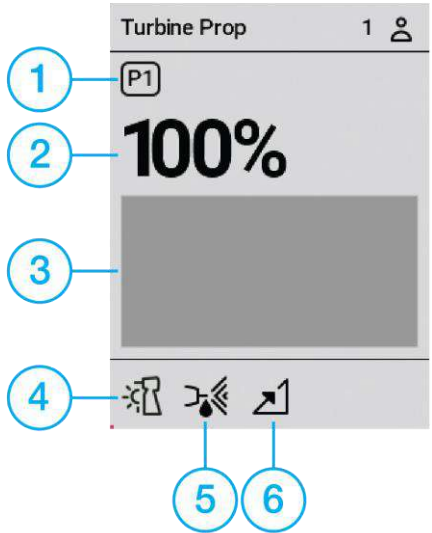
All instruments on the dentist's table are active and may be controlled once removed from the individual holders (dentist's table with lower instruments hoses) or by picking them up from the dentist's table (with upper instruments hoses). The individual instrument screens appear automatically, and their parameters may be adjusted.

The individual instruments are started, and speed/power is controlled using the individual pedals on the foot controller.

i. Working with two instruments—a second instrument may also be used when removed from the dentist's table. Work with the active instrument is not limited in any way. Another instrument other than the instrument currently in use may be used once all other instruments are put back into the dentist's table.



4.9.1 Standard TURBINE and TURBINE with proportional valve



i. Points 2 and 6 are only accessible for a turbine with a proportional valve.

1. **Program of the instrument.** A dentist may save up to 4 different instrument settings. See the chapter on instrument programs.

Possible settings:



Press to select the program

2. **Maximum turbine power**
Maximum instrument power may be limited to a set power.

3. **Power indicator**

4. **Instrument lighting**

Possible settings:



Light off



Light on



Press to set instrument lighting

5. **Instrument cooling**

Possible settings:



Cooling off



Air cooling



Water cooling



Water cooling
with automatic chip blower



Spray cooling



Spray cooling
with automatic chip blower



Press/press and hold
to set the cooling type



Press to select the required
cooling type

6. Foot controller mode

Possible settings:



Switching on/off mode



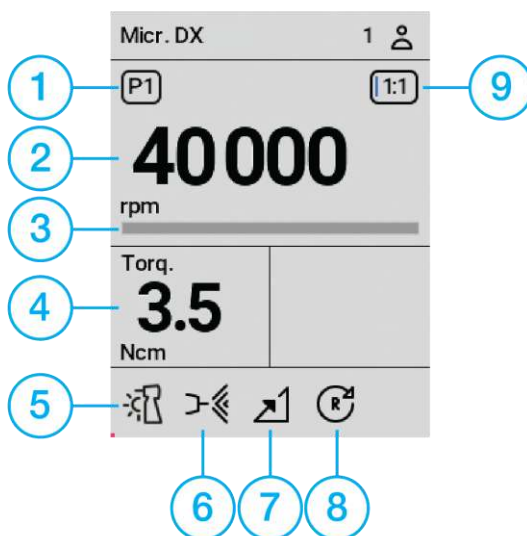
Analog control mode (only available for turbine with proportional valve)



Press to set foot controller mode



Quick-connect tools can only be changed when the hose is inserted or when the automatic light-on-tool-removal function is turned off.

4.9.2 Micromotor DX, DX BLUE

- 1. Program of the instrument.** A dentist may save up to 4 different instrument settings. See the chapter on instrument programs.

Possible settings:



Press to select the program

- 2. Maximum micromotor speed**

Maximum instrument speed may be limited to a set speed.

- 3. Speed indicator**

- 4. Torque**



Press to set torque

5.

Instrument lighting

Possible settings:



Light on



Blue light on (only available for DX BLUE)



Light off



Press to set instrument lighting



Press and hold to light off (only available for DX PRO BLUE)

6.

Instrument cooling

Possible settings:



Cooling off



Air cooling



Water cooling



Water cooling with automatic chip blower



Spray cooling



Spray cooling with automatic chip blower



Press/press and hold to set the cooling type



Press to select the required cooling type

7.

Foot controller mode

Possible settings:



Switching on/off mode



Analog control mode



Press to set foot controller mode

8.

Direction of rotation

Possible settings:



Rotation to the right



Rotation to the left



Press to set direction of rotation

9.

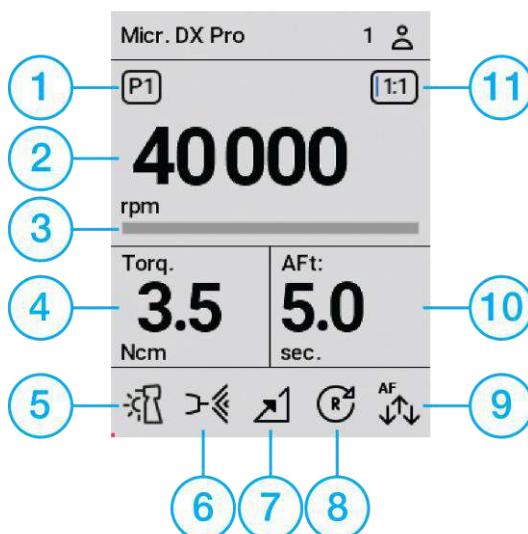
Transmission ratio of the contra angle. (See the chapter 4.9.10)

Press to set transmission ratio



Press to select the required transmission ratio

4.9.3 Micromotor DX PRO, DX PRO BLUE



- Program of the instrument.** A dentist may save up to 4 different instrument settings. See the chapter on instrument programs.

Possible settings:



Press to select the program

- Maximum micromotor speed**
Maximum instrument speed may be limited to a set speed.

- Speed indicator**

- Torque**

Press to set torque

- Instrument lighting**

Possible settings:



Light on



Blue light on (only available for DX PRO BLUE)



Light off



Press to set instrument lighting



Press and hold to light off (only available for DX PRO BLUE)

6. Instrument cooling

Possible settings:



Cooling off



Air cooling



Water cooling

Water cooling
with automatic chip blower

Spray cooling

Spray cooling
with automatic chip blowerPress/press and hold
to set the cooling typePress to select the required
cooling type**7. Foot controller mode**

Possible settings:



Switching on/off mode



Analog control mode



Press to set foot controller mode

8. Direction of rotation

Possible settings:



Rotation to the right



Rotation to the left



Press to set direction of rotation

9. Micromotor working mode

Normal mode

Autoreverse mode
(changes the direction
of rotation after hitting
an obstacle)Autoforward mode
(after changing the direction
of rotation, it returns to the original
direction)

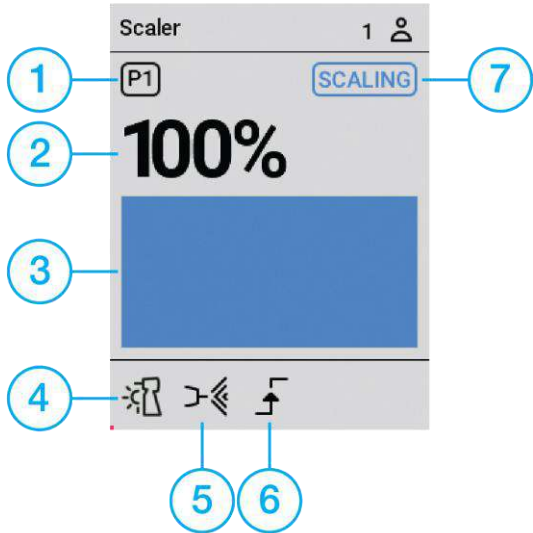
Press to set micromotor working mode

10. Autoforward time**11. Transmission ratio of the contra angle. (See the chapter 4.9.10)**

Press to set transmission ratio

Press to select the required
transmission ratio


4.9.4 Scaler SATELEC NEWTRON LED, SATELEC XINETIC



1. **Program of the instrument.** A dentist may save up to 4 different instrument settings. See the chapter on instrument programs.

Possible settings:





 Press to select the program

2. **Maximum scaling intensity.**
Maximum scaling intensity may be limited to a set value.

3. **Scaling intensity indicator**

4. **Instrument lighting** (only available for model NEWTRON)
Possible settings:


 Light on  Light off

 Press to set instrument lighting

5. **Instrument cooling**

Possible settings:

 Cooling off  Water cooling

 Press to set the cooling type

6. Foot controller mode

Possible settings:



Switching on/off mode



Analog control mode



Press to set foot controller mode

7. Scaler mode

Possible settings:



Perio mode (low power)



Endo mode (medium power)



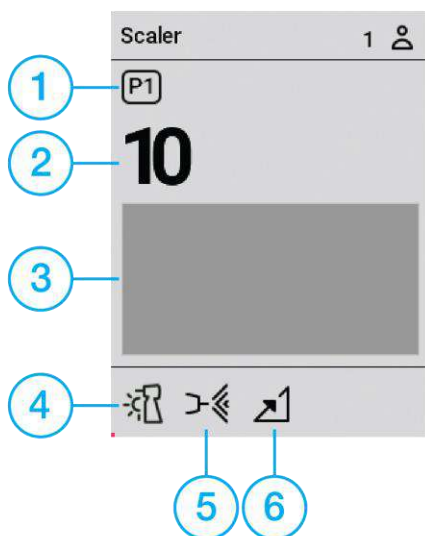
Scaling mode (high power)



Boost mode (boost) (only available for model NEWTRON)



Press to set scaler mode

4.9.5 Scaler EMS, EMS LED

- 1. Program of the instrument.** A dentist may save up to 4 different instrument settings. See the chapter on instrument programs.

Possible settings:



Press to select the program

2. Maximum scaling intensity

Maximum scaling intensity may be limited to a set value.

3. Scaling intensity indicator

4. **Instrument lighting** (only available for model with LED)

Possible settings:



Light on



Light off



Press to set instrument lighting

5. **Instrument cooling**

Possible settings:



Cooling off



Water cooling



Press to set the cooling type

6. **Foot controller mode**

Possible settings:



Switching on/off mode

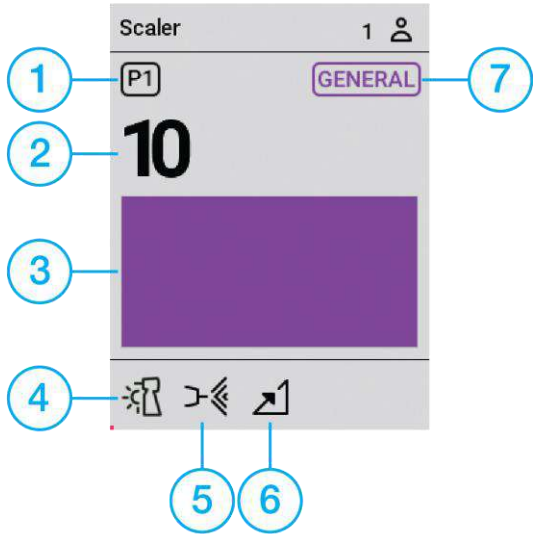


Analog control mode



Press to set foot controller mode


4.9.6 Scaler NSK VA170, NSK VA170 LED



1. **Program of the instrument.** A dentist may save up to 4 different instrument settings. See the chapter on instrument programs.

Possible settings:



 Press to select the program

2. **Maximum scaling intensity**
Maximum scaling intensity may be limited to a set value.

3. **Scaling intensity indicator**

4. **Instrument lighting** (only available for model VA170 LED)

Possible settings:



Light on



Light off



Press to set instrument lighting

5. **Instrument cooling**

Possible settings:



Cooling off



Water cooling



Press to set the cooling type

6. Foot controller mode

Possible settings:



Switching on/ off mode



Analog control mode



Press to set foot controller mode

7. Scaler mode

Possible settings:



Perio mode (low power)



Endo mode (medium power)

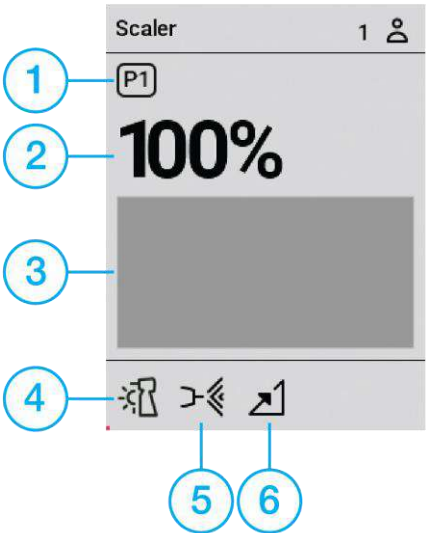


General mode (high power)



Press to set scaler mode

4.9.7 Scaler LM LED



1.

Program of the instrument. A dentist may save up to 4 different instrument settings. See the chapter on instrument programs.

Possible settings:



Press to select the program

2.

Maximum scaling intensity.

Maximum scaling intensity may be limited to a set value.

3.

Scaling intensity indicator

4. **Instrument lighting**

Possible settings:



Light on



Light off



Press to set instrument lighting

5. **Instrument cooling**

Possible settings:



Cooling off



Water cooling



Press to set the cooling type

6. **Foot controller mode**

Possible settings:



Switching on/ off mode

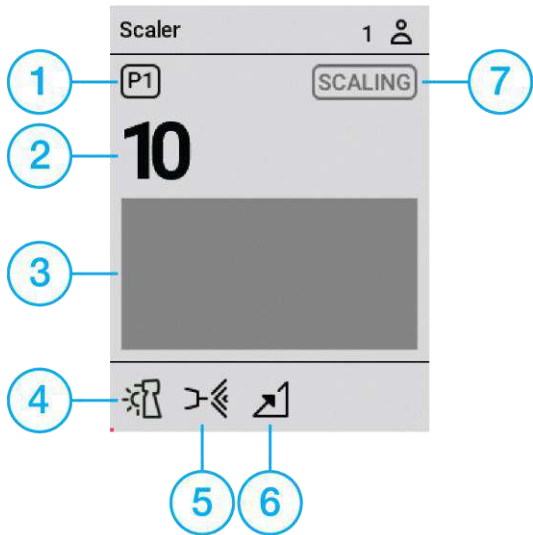


Analog control mode



Press to set foot controller mode


4.9.8 Scaler WOODPECKER



1. **Program of the instrument.** A dentist may save up to 4 different instrument settings. See the chapter on instrument programs.

Possible settings:



 Press to select the program

2. **Scaling intensity**
Maximum scaling intensity may be limited to a set value.

3. **Scaling intensity indicator**

4. **Instrument lighting**

Possible settings:



Light on



Light off



Press to set instrument lighting

5. **Instrument cooling**

Possible settings:



Cooling off



Water cooling



Press to set the cooling type

6. **Foot controller mode**

Possible settings:



Switching on/ off mode



Analog control mode



Press to set foot controller mode

7.

Scaler mode

Possible settings:



Scaling mode (high power)



Endo mode (medium power)



Press to set scaler mode

4.9.9 Instrument programs

- i. The instrument programming process is applicable to all instruments controlled from the dentist's table
- i. 4 different program settings are supported for every instrument

The currently used instrument program is identified on the display by icons

Saving changes to the currently displayed program

On the keypad press and hold the button of the program to save the current parameters and instrument settings. A sound signal confirms the saving of the program.

Recalling a program

Press the button repeatedly to set the desired program to .

4.9.10 Transmission ratio



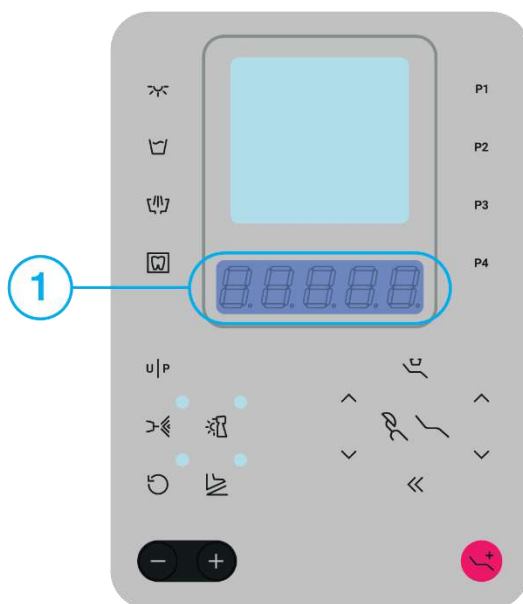
On the keypad press the button of the transmission ratio , then choose the required transmission ratio for micromotor by press . The selected value is framed dark.

4.10 Instrument control - control panel ONE

All instruments on the dentist's table are active and may be controlled once removed from the individual holders (dentist's table with lower instruments hoses) or by picking them up from the dentist's table (with upper instruments hoses). The seven-segment display shows the instrument description and current intensity or speed value.

The individual instruments are started, and speeds are controlled using the individual pedals on the foot controller.

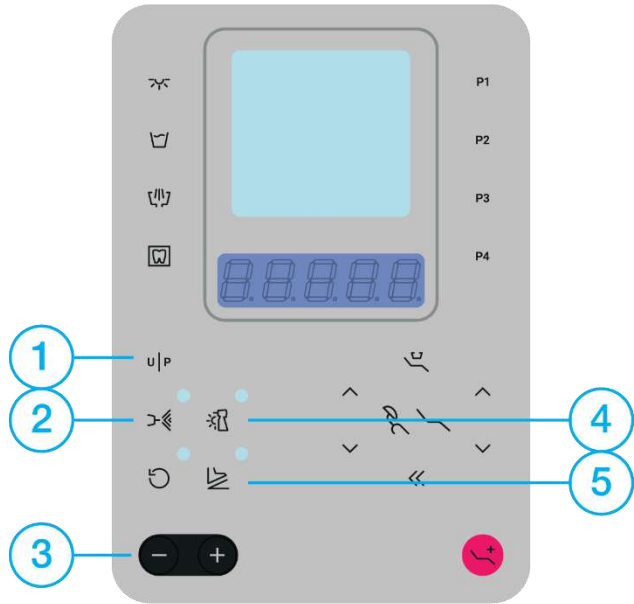
i. Working with two instruments—a second instrument may also be used when removed from the dentist's table. Work with the active instrument is not limited in any way. Another instrument other than the instrument currently in use may be used once all other instruments are put back into the dentist's table.












1. Seven segment display

i. For a list of messages displayed, see chapters 4.1.4 List of messages on the ONE seven-segment display, 4.1.5. List of error messages on the ONE seven-segment display.

4.10.1 Standard TURBINE and TURBINE with proportional valve



1. **Program of the instrument.** A dentist may save up to 4 different instrument settings. See the chapter on instrument programs.

	Press	P 2	Selected program /program rotation P1->P2->P3->P4 ->P1->P2->P3.../
Instrument programming			
	Press and hold	SAVED	Instrument settings saved
2. Instrument cooling			
	Cooling off		Press/ press and hold to set the cooling type
	Water cooling	UJ	
	Spray cooling	S	
	Air cooling	A	
	Water cooling with automatic chip blower	UJ BL	
	Spray cooling with automatic chip blower	S BL	
	Cooling mode setting		Press to set the required cooling type

3. Speed – turbine with proportional valve

Press



Increasing the speed
step by step



Decreasing the speed
step by step

Press and hold



Increasing the speed
with acceleration



Decreasing the speed
with acceleration

4. Instrument lighting



Light off



Light on

5. Foot controller mode



Switching on/off mode



Analog control mode (only available
for proportional turbine)

i. Description of the light indicator



Completely filled circle

Lights without interruption



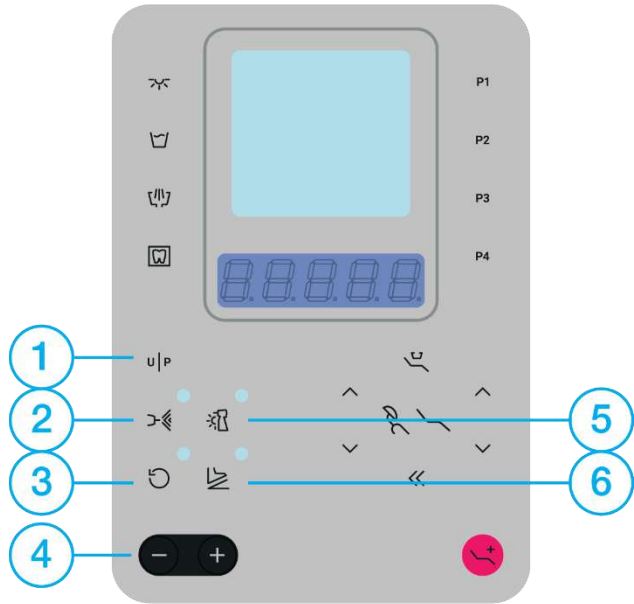
Half-filled circle

Flashing












Quick-connect tools can only be changed when the hose is inserted or when the automatic light-on-tool-removal function is turned off.

4.10.2 Micromotor DX, DX BLUE



1. **Program of the instrument.** A dentist may save up to 4 different instrument settings. See the chapter on instrument programs.

	Press	P 2	Selected program /program rotation P1->P2->P3->P4 ->P1->P2->P3.../
Instrument programming			
	Press and hold	SAVED	Instrument settings saved
2. Instrument cooling			
	Cooling off		Press/ press and hold to set the cooling type
	Water cooling	UJ	
	Spray cooling	S	
	Air cooling	A	
	Water cooling with automatic chip blower	UJ BL	
	Spray cooling with automatic chip blower	S BL	
	Cooling mode setting		Press to set the required cooling type

3. Direction of rotation



Rotation to the right



Rotation to the left

i. The left rotations, unless they are stored in the memory, are remembered only temporarily until the dental unit is switched off.

4. Micromotor speed

Press



Increasing the speed
step by step



Decreasing the speed
step by step

Press and hold



Increasing the speed
with acceleration



Decreasing the speed
with acceleration

5. Instrument lighting



Light off



Light on



Blue light on (only available for DX BLUE)

6. Foot controller mode



Switching on/off mode



Analog control mode

i. Description of the light indicator



Completely filled circle

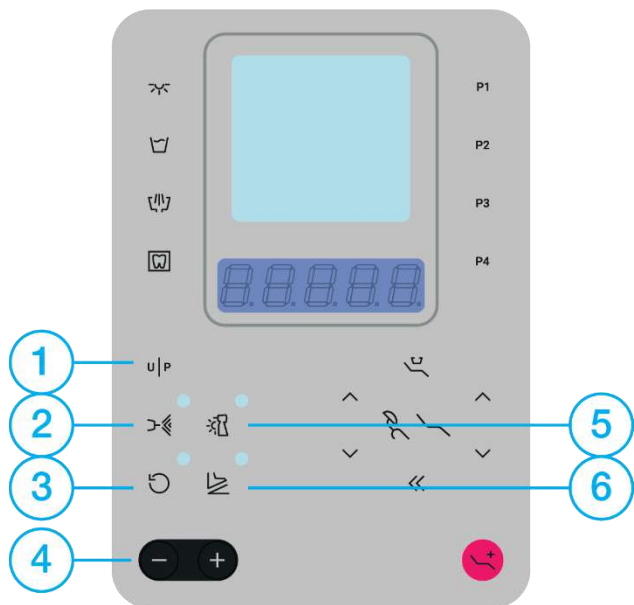
Lights without interruption












Half-filled circle

Flashing

4.10.3 Micromotor DX PRO, DX PRO BLUE



1. **Program of the instrument.** A dentist may save up to 4 different instrument settings. See the chapter on instrument programs.

	Press	P 2	Selected program /program rotation P1->P2->P3->P4 ->P1->P2->P3.../
Instrument programming			
	Press and hold	SAVED	Instrument settings saved
2. Instrument cooling			
	Cooling off		Press/ press and hold to set the cooling type
	Water cooling	UJ	
	Spray cooling	S	
	Air cooling	A	
	Water cooling with automatic chip blower	UJ BL	
	Spray cooling with automatic chip blower	S BL	
	Cooling mode setting		Press to set the required cooling type

3. Direction of rotation



Rotation to the right



Rotation to the left

i. The left rotations, unless they are stored in the memory, are remembered only temporarily until the dental unit is switched off.

4. Micromotor speed

Press



Increasing the speed
step by step



Decreasing the speed
step by step

Press and hold



Increasing the speed
with acceleration



Decreasing the speed
with acceleration

5. Instrument lighting



Light off



Light on



Blue light on (only available for DX PRO BLUE)

6. Foot controller mode



Switching on/off mode



Analog control mode

i. Description of the light indicator



Completely filled circle

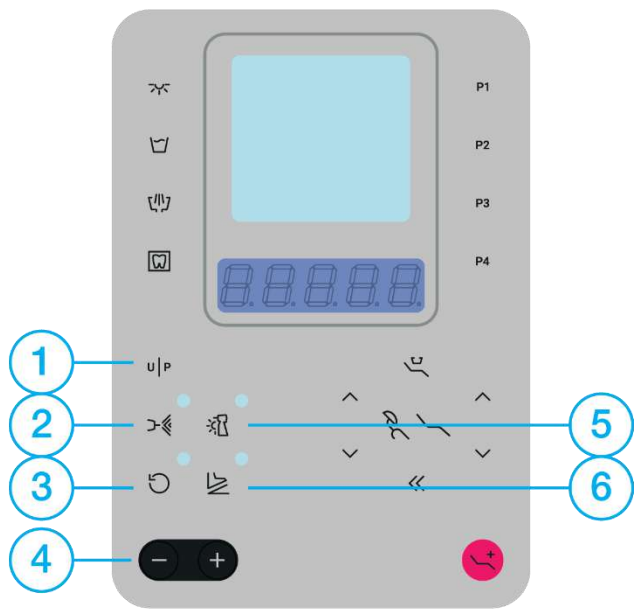
Lights without interruption











Half-filled circle

Flashing

4.10.4 Scaler SATELEC NEWTRON LED, SATELEC XINETIC



1. **Program of the instrument.** A dentist may save up to 4 different instrument settings. See the chapter on instrument programs.

	Press	P 2	Selected program /program rotation P1->P2->P3->P4 ->P1->P2->P3.../
Instrument programming			
	Press and hold	SAVED	Instrument settings saved
2. Instrument cooling			
	Cooling off		Water cooling
3. Scaling mood			
	Scaling mode (high power)	SCALE S 100	Change the scaling mode /program rotation SCALING- >PERIO-> ENDO->SCALING->PERIO- >ENDO.../
	Endo mode (medium power)	Endo E 10	
	Perio mode (low power)	PER P 10	
	Boost mode	BOOST b 100	
			(only available for model NEWTRON)

4. **Scaling intensity**

Press



Increasing the speed
step by step



Decreasing the speed
step by step

Press and hold



Increasing the
speed with acceleration



Decreasing the
speed with acceleration

5. **Instrument lighting**



Light off



Light on

6. **Foot controller mode**



Switching on/off mode



Analog control mode

i. *Description of the light indicator*



Completely filled circle

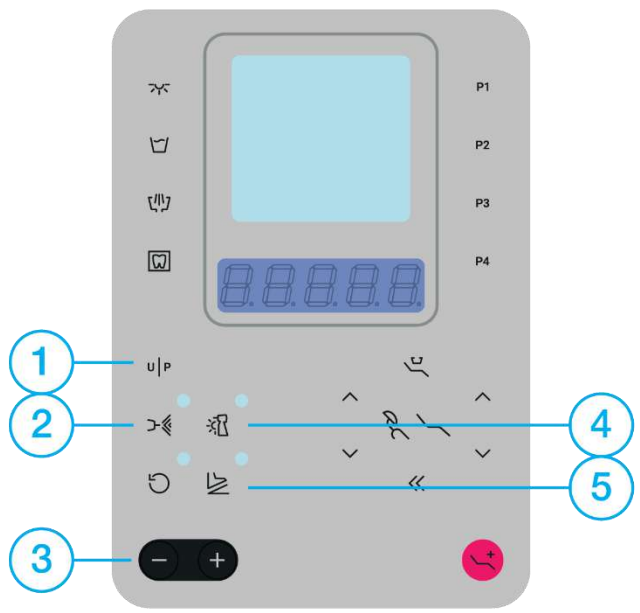
Lights without interruption

















Half-filled circle

Flashing

4.10.5 Scaler EMS, EMS LED



1. **Program of the instrument.** A dentist may save up to 4 different instrument settings. See the chapter on instrument programs.

	Press		Selected program /program rotation P1->P2->P3->P4 ->P1->P2->P3.../
Instrument programming			
	Press and hold		Instrument settings saved
2. Instrument cooling			
	Cooling off		Water cooling
3. Scaling intensity			
Press		Press and hold	
	Increasing the speed step by step		Increasing the speed with acceleration
	Decreasing the speed step by step		Decreasing the speed with acceleration
4. Instrument lighting			
	Light off		Light on
5. Foot controller mode			
	Switching on/off mode		Analog control mode

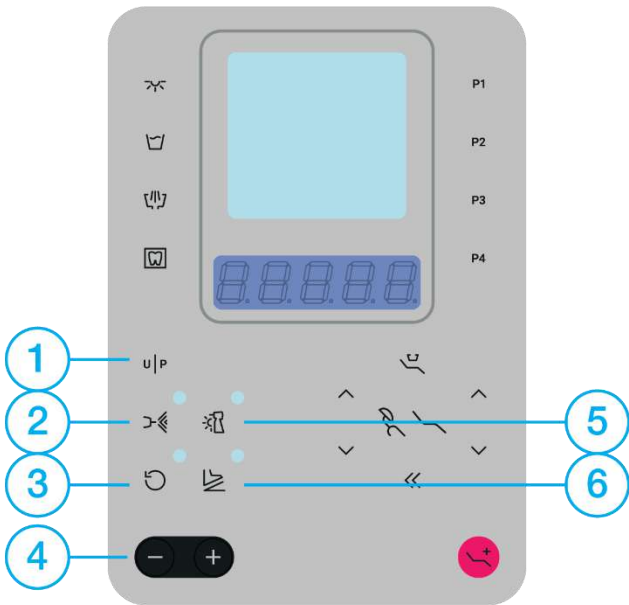
i. Description of the light indicator



Completely filled circle

Lights without interruption

4.10.6 Scaler NSK VA170, NSK VA170 LED



1. **Program of the instrument.** A dentist may save up to 4 different instrument settings. See the chapter on instrument programs.



Press

P 2

Selected program
/program rotation P1->P2->P3->P4
->P1->P2->P3.../

Instrument programming



Press and hold

SAVED

Instrument settings saved

2. **Instrument cooling**



Cooling off



Water cooling

3. Scaling mood



Perio mode (low power)

PER IO
P IO



Endo mode (medium power)

End IO
E IO



General mode (high power)

Gen IO
G IO

Change the scaling mode
/program rotation PERIO->ENDO->
GENERAL->PERIO->ENDO.../

4. Scaling intensity

Press



Increasing the speed
step by step



Decreasing the speed
step by step

Press and hold



Increasing the speed
with acceleration



Decreasing the speed
with acceleration

5. Instrument lighting (only available for model VA170 LED)



Light off



Light on

6. Foot controller mode



Switching on/off mode



Analog control mode

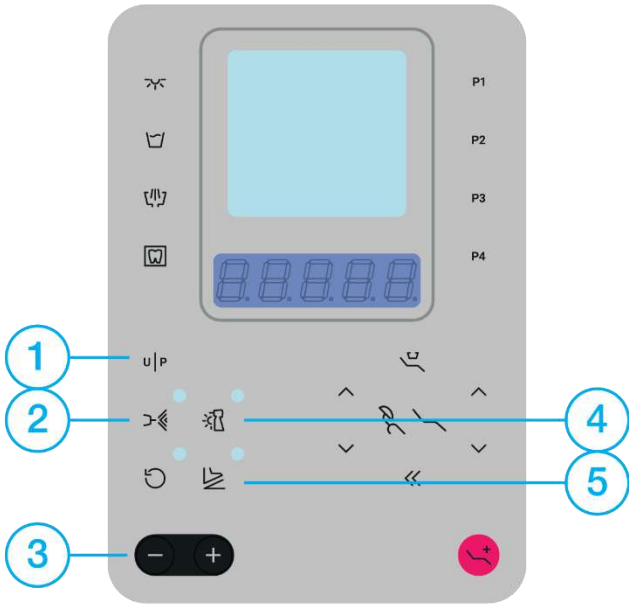
i. Description of the light indicator















Completely filled circle

Lights without interruption

4.10.7 Scaler LM LED



1. **Program of the instrument.** A dentist may save up to 4 different instrument settings. See the chapter on instrument programs.

	Press		Selected program /program rotation P1->P2->P3->P4 ->P1->P2->P3.../
Instrument programming			
	Press and hold		Instrument settings saved
2. Instrument cooling			
	Cooling off		Water cooling
3. Scaling intensity			
Press		Press and hold	
	Increasing the speed step by step		Increasing the speed with acceleration
	Decreasing the speed step by step		Decreasing the speed with acceleration
4. Instrument lighting			
	Light off		Light on

5. Foot controller mode



Switching on/off mode



Analog control mode

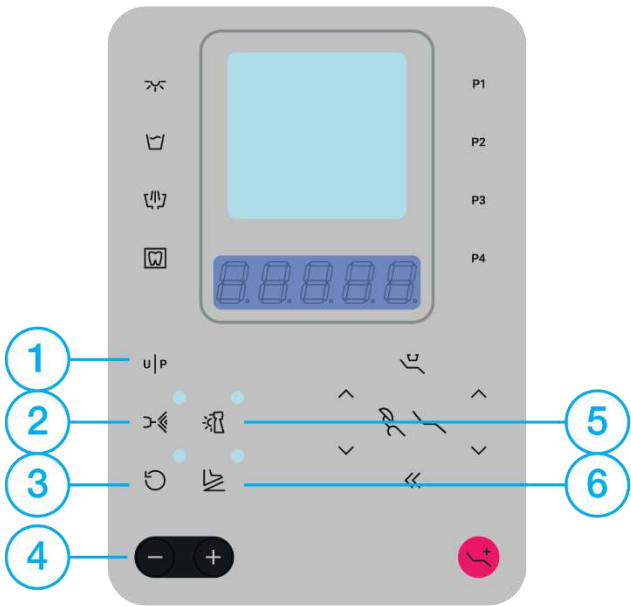
i. Description of the light indicator



Completely filled circle

Lights without interruption

4.10.8 Scaler WOODPECKER



1. **Program of the instrument.** A dentist may save up to 4 different instrument settings. See the chapter on instrument programs.



Press

P 2

Selected program
/program rotation PROG1->PROG2-
>PROG3->PROG4->PROG1.../

Instrument programing



Press and hold

SAVED

Instrument settings saved

2. **Instrument cooling**



Cooling off



Water cooling

3. Scaling mood



Scaling mode (high power)

SCALE
S 10
Endo
E 10

Change the scaling mode
/program rotation SCALING->
ENDO->SCALING->.../



Endo mode (medium power)

4. Scaling intensity

Press



Increasing the speed
step by step



Decreasing the speed
step by step

Press and hold



Increasing the speed
with acceleration



Decreasing the speed
with acceleration

5. Instrument lighting



Light off



Light on

6. Foot controller mode



Switching on/off mode



Analog control mode

i. Description of the light indicator



Completely filled circle

Lights without interruption

4.10.9 Instrument programs

- i. The instrument programming process is applicable to all instruments controlled from the dentist's table
i. 4 different program settings are supported for every instrument

The currently used instrument program is identified on the display as

P 1,P 2,P 3,P 4

Saving changes to the currently displayed program



On the keypad press and hold the button of the program to save the current parameters and instrument settings. A sound signal confirms the saving of the program.

Recalling a program



Press the button repeatedly to set the desired program to P1 P4 .

5 Dental unit operation

5.1 Dentist's element

The dentist's element is available in two versions of the instrument guide.



Dentist's control panel with lower hose delivery system
(Traditional style)



Dentist's control panel with upper hose delivery system
(Continental style)

For manipulation with dentist's element, there is not necessary to release any brake. The arm is set to allow comfortable handling. There are brakes on the arms, the strength of which can be adjusted during regular servicing.

5.1.1 Dentist's table for Model ONE 100 ORTHODONTICS



Model ONE 100 ORTHODONTICS
with two tray tables



Model ONE 100 ORTHODONTICS
with one tray table

5.1.2 Whip locking

A dentist's table with instrument hoses routed in the upper configuration may be equipped with a whip lock. An instrument whip is routed to the instrument stopped in a designated slot. The whip is pulled towards the stop to unlock. The whip then returns back to its basic position.



5.1.3 Mechanical adjustment of instrument cooling water flow

ONE regulator for all instruments

ONE mechanical regulator located at the bottom of the dentist's table is used to adjust instrument cooling water flow for all instruments.



Own regulator for each instrument

The mechanical regulators located at the bottom of the dentist's table are used to adjust instrument cooling water flow individually.



One regulator for each instrument – Model ONE 100 ORTHODONTICS



One mechanical regulator located on the cuspidor block, used to adjust the cooling water flow for all instruments.

5.1.4 Condensate collection container

The condensate is collected in a small container (as shown on the picture). If the marked maximum level is exceeded, it is necessary to unscrew and empty the container. If the filter is dirty, replace it either.



5.2 Cuspidor block



Do not unscrew the bottles, do not fill-up bottles for distilled water and hygiene solutions during the ongoing hygiene process! The bottles are under pressure.

5.2.1 Optional cuspidor block equipment

Wet suction

- Wet suction system with/without Dürr valve

Dry suction

- Cattani mini-separator
- Dürr CS/Metasys separator
- Metasys ECO_L1, water-air separator

Amalgam separator


- Dürr CAS
- Metasys MST1

Other possibilities

- Boiler for heating water
- WEK system (in accordance with EN 1717)

WEK – water treatment unit prevents the formation of biofilm in waterways. The GREEN&CLEAN WK solution, specially developed for this device, provides effective and gentle protection against biofilm formation. WEK has a cascade that guarantees the separation of decontaminated water from tap water. This ensures compliance with EN 1717 DIN 88-4.

5.2.2 Central water supply

Water from the central drinking water supply can be used to cool the operating field and as a source of the water for syringes. If the unit is equipped with this function, you can activate it by toggling the cooling type selection switch located in the spittoon block to position. 



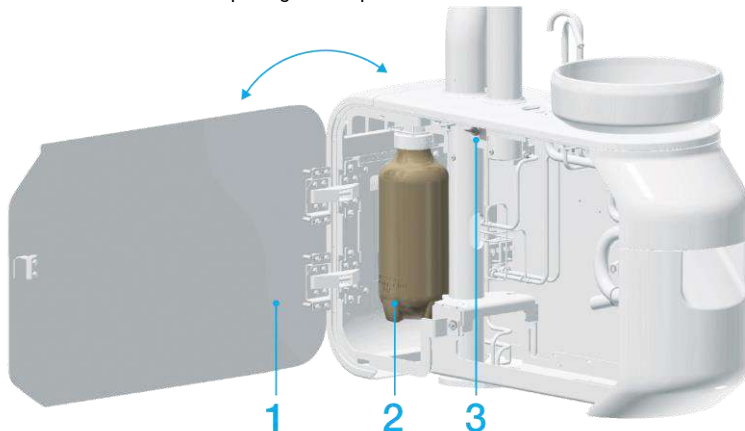
i. If the dental unit is not equipped with a central water supply, but has a cooling type selection switch, this switch position is without function.

5.2.3 Filling-up the distilled water

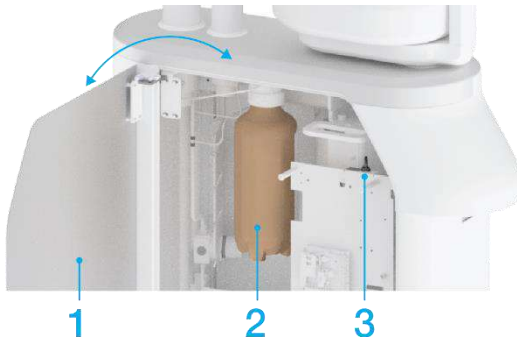
Distilled water is used as a source of water to cool the operating field, as well as a source of water for syringes for the dentist's element and the assistant's element.

Filling-up the distilled water – bottle without funnel:

A bottle of distilled water is placed in a cuspidor. For a seal replacement, bottle replacement, the bottle is accessible and removable after opening the cuspidor's door.



Model ONE 100



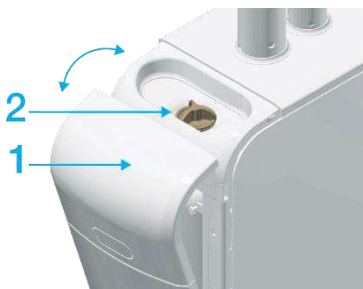
Model ONE 200

1. Open the cuspidor's door (1).
2. Turn the three-position switch on the cuspidor block to the position with crossed drops symbol to depressurised waterway system (3).
In the case of a version without a switch, turn off the unit at the main switch.
3. Wait until the pressure is released, unscrew the bottle (2).
4. Top up with distilled water.
5. Screw the bottle back (2).
6. Turn the three-position switch to the position with the bottle symbol (3).
In the case of a version without a switch, turn on the unit at the main switch.
7. Close the cuspidor's door (1).

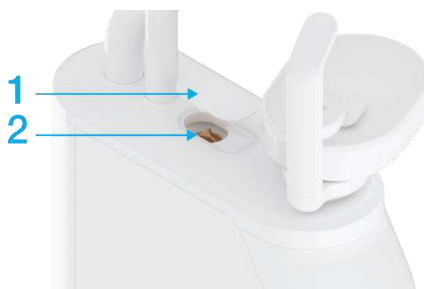


Filling-up the distilled water – bottle with funnel:

Distilled water is poured into the bottle through a funnel located under the front cover of the cuspidor. A bottle of distilled water is placed in a cuspidor. For service purposes (seal replacement, bottle replacement), the bottle is accessible and removable after opening the cuspidor's door.



Model ONE 100



Model ONE 200

1. Open the front cover of the cuspidor **(1)** (the waterway system is automatically depressurised).
2. Wait until the pressure is released, unscrew the cap in the funnel **(2)**.
3. Top up with distilled water. During the filling, an intermittent sound signal sounds, the interval of which is shortened by topping up. A continuous beep indicates that the bottle is full.
4. Screw the cap back in the funnel **(2)**.
5. Close the front cover of the cuspidor **(1)** (the waterway system is automatically pressurized).

i. The funnel cover (Model ONE 200) has a built-in magnet that acts on the bottle depressurization switch. Improper fitting of the funnel cover can cause the waterway system not to be pressurized.



Do not use demineralised water intended for technical applications!
Do not use saline solution!
The manufacturer recommends replacing the distilled water container once a year.

*i. If the dental unit is not equipped with a hygiene system, it is necessary to pour distilled water with a mixed disinfectant solution into the bottle.
For more information, see chapter 6.1 Disinfection of instrument water cooling channels - Manual hygiene.*



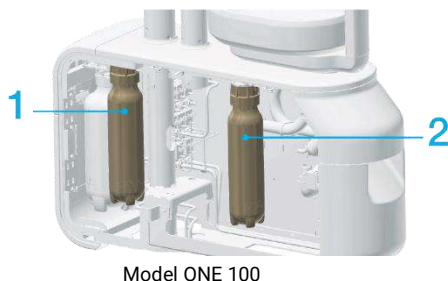
The tensometric sensor is sensitive. It is necessary to proceed carefully with the manipulation in order not to deviate the system.

5.2.4 Filling-up and change of solutions for the automatic hygiene system

If the dental unit is equipped with a Diplomat automatic hygiene system, in the cuspidor, in addition to the bottle for distilled water, there are bottles for solutions for disinfection waterways and decontamination of suction.

The automatic hygiene system detects a lack of liquid in the bottles and does not start the hygiene procedure.

The waterway disinfection solution bottle (1) and the suction decontamination solution bottle (2) are accessible from the left side of the cuspidor.



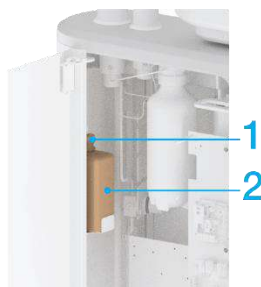
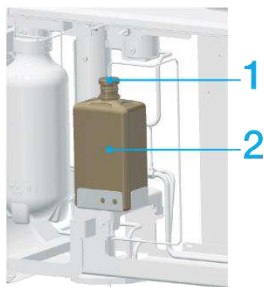
Hygiene bottles can be unscrewed at any time during work and filled-up with the appropriate solutions.



Do not unscrew the bottles, do not fill-up bottles for distilled water and hygiene solutions during the ongoing hygiene process! The bottles are under pressure.

If the dental unit is equipped with a WEK water treatment unit, the system will automatically alert you to the missing Green & Clean WK solution located in the spittoon block. The shrink solution bottle (2) needs to be replaced. It is not refillable.

Carefully pull the cap (1) with the tube out of the neck of the empty bottle and insert it into the new bottle (2).



5.2.5 Cuspidor bowl

Two versions of cuspidor bowls are available.



Fixed bowl



Rotary bowl

5.3 Assistant's arm

There are two types of assistant's arms - long and short, and two types of assistant's element - Assistant's element advanced - with keyboard, assistant's element basic.

Model ONE 100



Assistant's arm - short



Assistant's arm - long

Model ONE 200



Assistant's arm - short



Assistant's arm - long

5.3.1 Assistant's element advanced



Assistant's element



Assistant's element advanced

Assistant's element keypad

Button	Description	Button	Description
	Filling the cup		Rinsing the bowl
	Rotating the bowl (without function)		Hygiene
	Main light		Bell (without function)
	The chair rinsing position		The chair entry position
	The chair previous position		Trendelenburg chair position
	Moving the chair up		Moving the backrest up
	Moving the chair down		Moving the backrest down
		Programmed chair positions P1 to P4	

i. Chair positions cannot be programmed from the keypad at the assistant's element.

5.3.2 Assistant's element basic



Assistant's element



Buttons for spittoon bowl rinse and cup fill

5.3.3 Assistant's element equipment

Saliva ejector

Necessary to remove excess secretions from the mouth, to maintain comfort and oral hygiene. It is activated automatically after removal from the holder. Automatically stops when inserted back into the holder.

The saliva ejector can be part of the equipment of the assistant's element, or as a separate tool with a holder.



Saliva holder

i. For information about aspirators cleaning, see chapter 6.4 Cleaning and decontaminating the saliva ejector.



The saliva ejector (tip) is a single-use appliance and is not intended for repeated use. Serious health risks are associated with reusing a saliva ejector (tip) with another patient.

Small aspirator, large aspirator

Aspirators are used to remove excess secretions from the mouth, to maintain comfort and hygiene. They are activated automatically after removal from the holder. Automatically stops when inserted back into the holder.

Aspirator suction may be adjusted by opening the aspirator control valves. Cannula connectors allow access to any point in the patient's oral cavity. For greater working comfort, it is possible to add a support roller to the suction cup holder.

i. For information about aspirators cleaning, see chapter 6.5 Cleaning and decontaminating the large and small aspirators.



Aspirator dimensions



Holders with support rollers

Polymerizing lamp

The polymerization lamp is ready for operation after the removal. To use the polymerizing lamp, please read the instructions for the polymerizing lamp model.

5.4 Lamp pantograph

Two types of pantographic light arm are available – undivided and divided (in the case of a monitor, a tray table) for two types of lamps.



Undivided pantograph Xenos



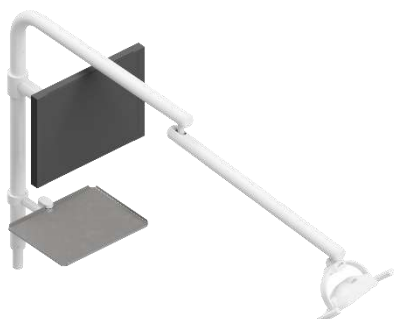
Undivided pantograph Faro



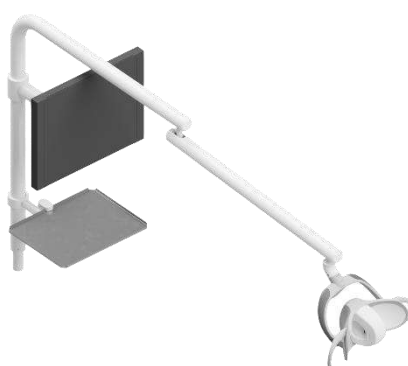
Divided pantograph Xenos
with tray table



Divided pantograph Faro
with tray table



Divided pantograph Xenos
with tray table and monitor



Divided pantograph Faro
with tray table and monitor

5.4.1 Xenos and Faro Maia LED lamps

The Xenos dental lamp and Faro dental lamp are designed for use in dental practice to illuminate the oral cavity. The light source is two highly luminous LEDs. They radiate homogeneous white light. The light trace is formed using two parabolic reflecting glasses with back reflection. The light trace achieved in this way allows the dentist to work with excellent colour resolution and without disturbing influences.

Parameters	Xenos	Faro Maia LED
Max. input:	10 VA	9VA
The optimal light trace is in the distance of:	700 mm	700 mm
Nominal size of the light trace:	max. 70 x 160 mm	max. 100 x 175 mm
Correlated colour temperature:	3700 K – 4000 K	5000 K
Reduced lighting intensity:	7 000 lx – 8 000 lx	7 000 lx – 8 000 lx
Full lighting intensity	> 26 000 lx	< 38 000 lx



Xenos dental lamp



Faro Maia LED dental lamp

5.4.2 Sirius lamp

The Sirius dental lamp is used to illuminate the patient's oral cavity during dental treatment and is intended for use with a dental unit.

Sirius series lamps use light-emitting diodes (LEDs) as a light source. Four light sources are used to reduce shadows. The light path thus achieved allows the dentist to work with excellent color resolution and without disturbing influences.

Parameters	Value
Supply voltage	24 V DC
Optimum light stop is at the distance of	700 mm
Nominal dimension of the light spot	max. 70 x 160 mm
Correlated color temperature	5500 K – 4000 K \pm 10%
Illuminance level	8 000 lx – 50000 lx

The Sirius dental lamp is designed for use with Diplomat-Dental dental units of the Model ONE and Model PRO series. The optimal distance of the lamp from the operating field is 60 to 80 cm. The basic lighting temperature is 5500K for all versions of the lights. The intensity of the lamp can be continuously changed or the light can be switched to a reduced intensity mode, which is suitable for working with light-sensitive materials such as UV composites, enamels and adhesives. The lamp can be controlled in three axes.

The lamp is available in four versions:

- Sirius Essential
- Sirius PLUS
- Sirius Power
- Sirius Ultra



Sirius dental lamp

Parameters	Sirius Essential	Sirius PLUS	Sirius Power	Sirius Ultra
Full light intensity	35 000lx	35 000lx	50 000lx	50 000lx
LED	4 x LED white	4 x LED white 4x LED yellow	4 x LED white 4x LED yellow	4 x LED white 4x LED yellow
Antipolymerization mode – 4000 K		✓	✓	✓
Color temperature	5500K \pm 10%	5500K \pm 10%	5500K \pm 10%	Adjustable 5500/4800/4400/4000K \pm 10%
Sensor	✓	✓	✓	✓
Sensor Range	10cm	10cm	10cm	10cm
Compatible with Model ONE	✓	✓	✓	
Compatible with Model PRO	✓	✓	✓	✓
Removable Handles	✓	✓	✓	✓

5.4.3 Main lamp control

i. To set the light intensity of the main lamp, see chapter 4.4 Main lamp

Control of the main lamp at the level of switching on and switching between light modes is possible from four places on the dental unit:

- By a button on Control panel ONE/ONE plus or on the assistant's element keyboard.

1. By pressing the button  the lamp lights up for the operating light.
2. By repeated pressing the button  the lamp changes its lighting intensity.
3. By pressing and holding the button  the lamp will switch-off.

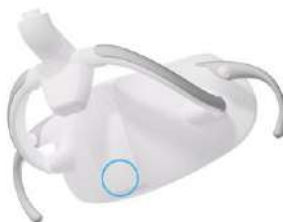
- By a sensor located on the main lamp.

1. By holding hand in front of the sensor, the lamp lights up for the operating light. Sound signal sounds.
2. By repeated brief holding the hand in front of the sensor, the lamp changes its lighting intensity. Sound signal sounds.
3. By long holding the hand in front of the sensor, the lamp will switch-off. Double sound signal sounds.

Position of non-contact sensors for lamp control



Xenos




Faro Maia LED



Sirius

- By a foot controller.
1. By pressing lever / pedal – the lamp lights up for the operating light.
 2. By pressing lever / pedal – the lamp changes its lighting intensity.
 3. By pressing lever / pedal – the lamp will switch-off.

Adjusting the light intensity:

1. Press the buttons  to decrease or increase the intensity of the operating light.
2. An audible signal will sound when the MAX/MIN intensity is reached.

5.4.3 Tray table, monitor

Optional elements are available for greater comfort for the doctor at work.

Medical monitor in two variants:

- Neovo monitor 22" DR2202 white
- Neovo monitor 22" RX22G black

FULL HD – Wide angle

Tray table on the lamp post

Made of stainless steel, with a load capacity of 1,5 kg.



Medical monitor



Tray table

5.5 Chair

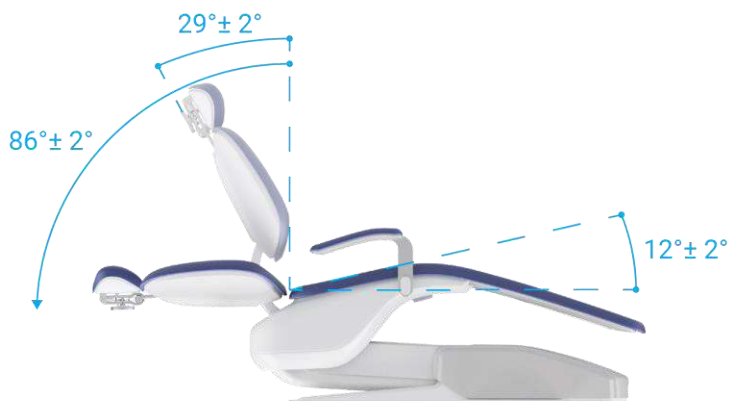
The dental unit can be equipped with two chair constructions.

The chair in the basic version, where the seat does not have the cradle function when the back-rest is moved.

The chair in the version, where the seat does have the cradle function when the back-rest is moved.

I. Both chair constructions reach the Trendelenburg position.

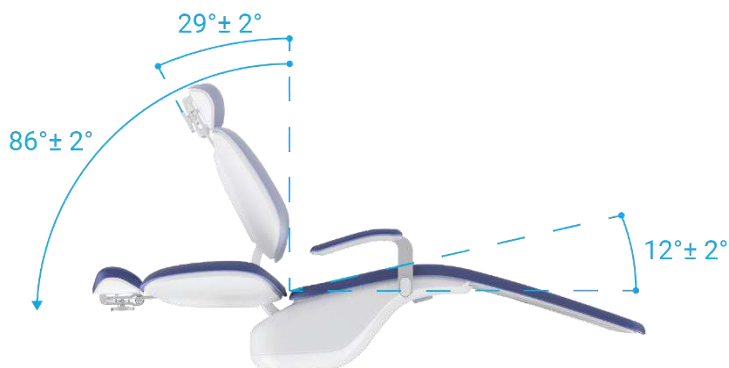
5.5.1 Cradle function range



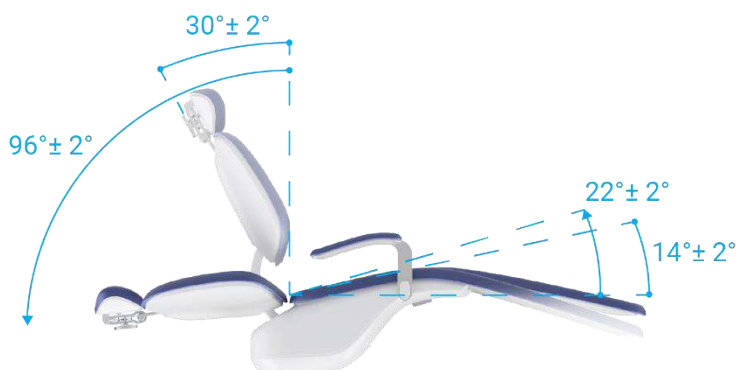
Model ONE 100 - Cradle function range of the backrest and seat in basic version – without cradle function.



Model ONE 100 - Cradle function range of the backrest and seat in the version with cradle function.



Model ONE 200 - Cradle function range of the backrest and seat in basic version – without cradle function.



Model ONE 200 - Cradle function range of the backrest and seat in the version with cradle function.

5.5.2 Chair control

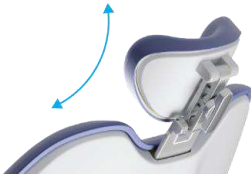
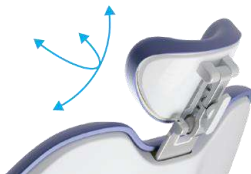
All movements of the chair can be controlled from the keyboard of control panel, from the keyboard of the assistant's table and via the foot controller.

- The way of controlling standard movements, recalling and programming the positions of the chair from the assistant's element keyboard is identical to the control from the control panel

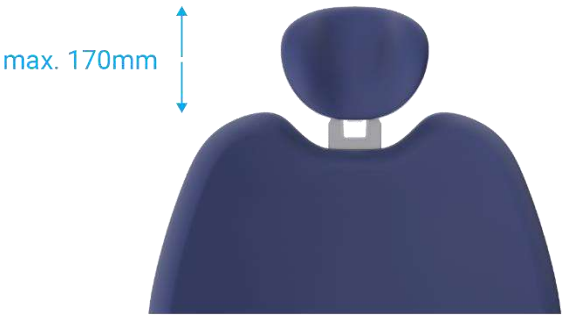
i. For the chair control methods via the foot control, see the chapter 5.6.1 Control with a foot controller.

5.5.3 Headrest control

The mechanism for the head-rest position setting can be in two versions.

	Head-rest	Direction of movement:	Securing the position
1.	2D MECHANICAL 	Forwards/Backwards	Mechanically by turning the lever.
2.	3D MECHANICAL 	Forwards/Backwards To the sides	Mechanically by turning the lever.

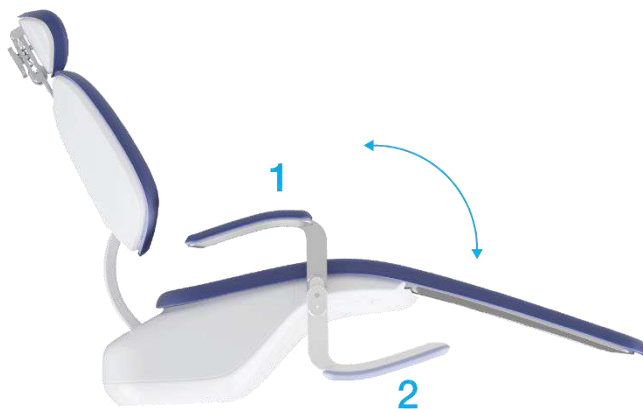
- The mechanical head-rest incline is set by releasing the lever located on the back of the head-rest. After reaching the desired position, the back-rest must be locked again with the lever.
- Height setting is performed mechanically, by pulling or pressure in the direction of the setting.



When working with a patient, we recommend using an external protective cover for the head-rest.
The protective sleeve protects the upholstery from damage by hair products.
Complaints may not be accepted in case of damage to the head-rest by hair products.

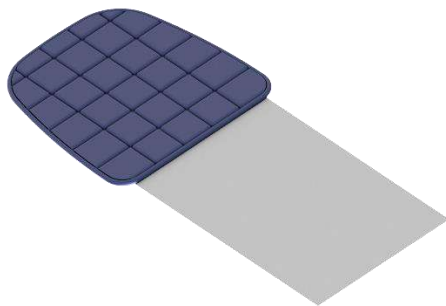
5.5.4 Hand-rest

The articulated hand-rest may be rotated backward (movement no. 1) or forward (movement no. 2).



5.5.5 Protective seat, child booster seat

For greater comfort of the patient and increased possibility of chair hygiene, a protective seat is available. A child seat is available to adapt the chair for a child patient.

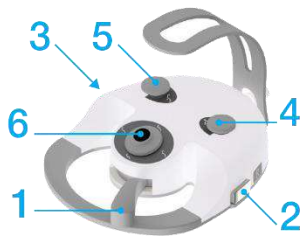


Protective seat

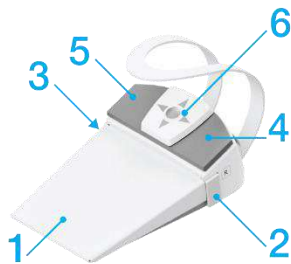


Child booster seat

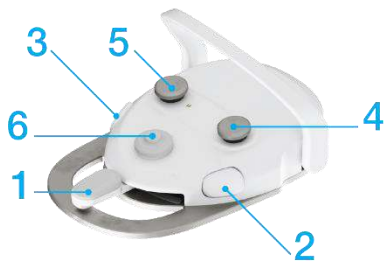
5.6 Foot controller



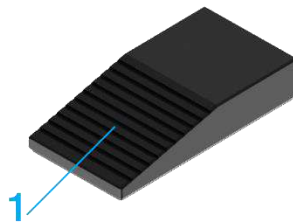
UNO foot controller



NOK foot controller



SWING foot controller



MARQUARDT foot controller

Foot controller buttons:

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Lever/Pedal 2. Right side button 3. Left side button | <ol style="list-style-type: none"> 4. Chair programming 5. The chair entry position 6. Joystick for chair controls |
|---|---|

5.6.1 Control with a foot controller

i. These control options are available, when all instruments are in basic position in the individual holders (dentist's table with lower instruments hoses) or at the dentist's table (with upper instruments hoses)

Controlling the chair

By moving the joystick (6) it is possible to control the basic movements of the chair up, down, back-rest up, back-rest down.

The chair entry position

By pressing the button (5) the chair entry position is recalled.

Recalling the chair program positions

Program position no. 1 is recalled by pressing the button (4) and subsequent by moving the joystick upwards.

Program position no. 2 is recalled by pressing the button (4) and subsequent by moving the joystick downwards.

Program position no. 3 is recalled by pressing the button (4) and subsequent by moving the joystick to the left

Program position no. 4 is recalled by pressing the button (4) and subsequent by moving the joystick to the right.

i. The second pressing/movement of the joystick must occur within two seconds after pressing the button (4) otherwise the position will not be recalled.

i. For the programming chair positions, see the chapter 4.8.2.

Controlling the spittoon bowl rinse

By pressing left side button (3) the spittoon bowl rinsing starts.

By pressing left side button (3), during the rinsing process, the spittoon bowl rinsing stops.

Controlling the cup fill

By pressing the right-side button (2) the cup starts filling.

By pressing right side button (2), during the cup filling process the cup filling stops.

Controlling the lamp

By pressing lever / pedal (1) – the lamp lights up highest intensity.

By pressing lever / pedal (1) – the light intensity changes from high to low or from low to high.

By long pressing lever / pedal (1) – the light switches off.

5.6.2 Instrument control with foot controller

i. These control options are available, after the instrument is removed from the individual holder.

Starting and regulating instruments

Level / pedal (1) is used for starting and regulating the rotary instrument revolutions and for starting and regulating the power of the scaler, based on the selected settings (the foot controller MARQUARDT does not regulate power or revolutions).

Instrument cooling

By pressing left side button (3) instrument cooling is activated according to the predefined cooling type.	Control panel ONE plus - the icon on the tool screen will change its status to - cooling activated. Control panel ONE - the LED next to the button lights up / flashes.
By pressing left side button (3) instrument cooling is deactivated.	Control panel ONE plus - the icon on the tool screen will change its status to - cooling deactivated. Control panel ONE - the LED next to the button turns off.

Micromotor reverse

By pressing and holding left side button (3) micromotor reverse is activated.	Control panel ONE plus - the icon on the tool screen will change its status to - reverse activated. Control panel ONE - the LED next to the button lights up.
By pressing and holding left side button (3) micromotor reverse is deactivated.	Control panel ONE plus - the icon on the tool screen will change its status to - reverse deactivated. Control panel ONE - the LED next to the button turns off.

Instrument cooling with chip blower

By pressing and holding right side button (2) automatic chip blowing is activated.	Control panel ONE plus - the icon on the tool screen will change its status to - chip blowing is activated. Control panel ONE - the LED next to the button flashes.
By releasing the right-side button (2) automatic chip blowing is deactivated.	Control panel ONE plus - the icon on the tool screen will change its status to - chip blowing is deactivated. Control panel ONE - the LED next to the button turns off.

i. For more information about display and indications on control panel, see chapter 4.9 Instrument control - control panel ONE plus/ 4.10 Instrument control - control panel ONE.

5.6.3 Foot controller connection

The connector for connecting the wired foot controller is located in the front lower part of the chair.

i. When connecting the foot controller, pay attention to the correct position (rotation) of the connector.



5.7 Finishing the work with the dental unit

Perform the following steps after finishing work:

- turn off the unit with the main switch,
- close the central water supply,
- turn off the compressor and vacuum unit.

5.8 Safety sensors



Do not place any objects in the work area of the dental unit. There is a risk of collision and injury. Check the work area before starting work.

The dental unit is equipped with safety sensors that are activated in the case of a collision. The movement of the chair is blocked if one of the safety switches is activated or instrument on the control panel is activated (micromotor, turbine, scaler).



	Sensor location	Sensor activation	Deactivation of the sensor
1.	Chair	In the case of a chair collision while moving down	By removing the blocking object
2.	Chair cover	In the case of a chair collision while moving down	By removing the blocking object
3.	Backrest	In the case of a backrest collision while moving down	By removing the blocking object
4.	Control panel	The chair movement is blocked by activation of any instrument with the foot control	By ending the work with instrument
5.	Assistant arm	In the case of an assistant arm collision while moving the chair down	By removing the blocking object
6.	Bowl (Model ONE 200)	The rotated bowl blocks the movement of the chair only if the chair is located above the collision sensor	By turning the bowl to the basic position

6 Product maintenance – cleaning, disinfection and decontamination

i. Instrument and tip maintenance should be performed according to the manufacturer's instructions. Cuspidor blocks with a central water manifold connection require the upstream filter be inspected along with the functionality of the water softening equipment (per the manufacturer's instructions).



Do not unscrew bottles with hygiene solutions during hygiene. Unscrewing the pressurized bottle will cause a sudden depressurization accompanied by a sonic boom.

6.1 Disinfection of instrument cooling waterways - Manual hygiene

If the unit is not equipped with an automatic water channel and suction hose hygiene system, regular hygiene must be performed manually.

6.1.1 Daily disinfection

If distilled water from a bottle is used to cool instruments:

The recommended disinfectants are Alpron, Sanosil S003 or Dentosept P in a 1% concentration with distilled water. Pour these solutions into the distilled water container. These products in a 1% concentration are completely inert with respect to patients. The channels of the cooling system are kept clean through regular use and there is no need to use other means of disinfection.

If water from a central manifold is used to cool instruments, daily hygiene is performed as follows:

1. Add the 1% solution of the disinfectant and distilled water to the distilled water container.
2. Set the switch on the cuspidor block to the "bottle" as the water source.
3. Remove an instrument and then activate each instrument one by one for a minimum of 10 seconds to flush all the instruments individually. Flush the first instrument in order for 30 seconds until the disinfectant solution from the container reaches to the dentist's table.
4. Then turn the switch on the cuspidor block to the central manifold as the water source.

We recommend performing such disinfection at least once a day. It is best at the end of the working day, while we recommend flushing all waterways with water from the central distribution system in the morning of the following working day. Rinse each instrument for at least 20 seconds.

6.1.2 Intensive disinfection/restoration of instrument water channels

Intensive disinfection uses a higher concentration of disinfectant solution. Intensive disinfection is not used when procedures are performed on patients.

All water channels and dispensers must be flooded with disinfectant. The disinfectant must remain in the water channels of the unit for the working period defined by the manufacturer. The solution is then rinsed out after the defined period.

Intensive disinfection is recommended to be performed:

- on a cyclical basis, at least once a quarter,
- under high micro-organism load,
- after an extended shutdown and it is recommended any time, the dental unit is not used for more than three days.


The process of intensive disinfection proceeds as follows:

1. Fill the distilled water container with 100% concentrated Alpron (a disinfectant).
Use the concentration defined by the manufacturer of any other disinfectant.
2. Set the switch on the cuspidor block to the "bottle" as the water source.
3. Remove an instrument and then activate to flow the concentrate through the water channels of all instruments until the disinfectant begins to flow out of the instrument.
4. The unit may then be turned off.
5. Allow the Alpron to work for a minimum of 60 minutes but a maximum of 50 hours.
6. Fill the distilled water container with distilled water.
7. Gradually flushing each instrument individually for a at least 120 seconds.

6.2 Disinfection of instrument cooling waterways – Semi - automatic hygiene

i. The semi-automatic hygiene system is available for units equipped with the Assistant's element with keyboard.

i. Semi - automatic hygiene disinfects the waterways of cooling instruments only on the dentist's element. Tools on the assistant's element need to be disinfected manually.


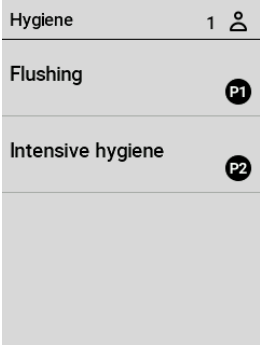

To start semi - automatic hygiene, press the button (1)  on the assistant's keyboard. Further orders must be entered through the dentist's element control panel.



Semi-automatic hygiene requires manual replacement and mixing of disinfection solution concentrations.





It provides two options:

1. Flushing.
2. Intensive hygiene.

	ONE plus display	ONE display
1. Flushing 		P 1 P 2
2. Intensive hygiene 		

6.2.1 Flushing



The system automatically ensures the gradual flushing of the instrument waterway hoses.

	ONE plus display	ONE display
1. PREPARATION - Put the instrument hygiene holder into the bowl. Press the  on the dentist's element control panel.		FLUSH
2. PREPARATION - Put the instrument hoses into the hygiene holder. The number of instruments in the holder Press the  on the dentist's element control panel.		

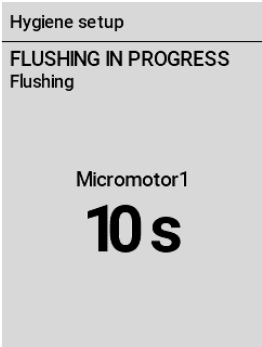
Before putting the syringes into the hygiene holder, it is necessary to slide the hoop onto the syringes, which will ensure that the waterway button is pressed.

- i. In the case of instruments on the assistant's element, it is necessary to carry out disinfection manually.
- i. In the case of a syringe Miniassistant, it must be kept pressed, it does not have a clip.



	ONE plus display	ONE display
<p>3. PREPARATION - Check the level of distilled water</p> <hr/> <p>Press the P1 on the dentist's element control panel.</p>	<div><div>Hygiene setup</div><div>FLUSHING</div><div>Is water in the bottle?</div><div>Continue P1</div></div>	<p>bottle</p>
<p>4. FLUSHING TIME – The recommended flushing time with water is 120 s. If a 1% bottle solution is used for cooling, it is possible to shorten the flushing time to a minimum 20 s.</p> <hr/> <p>By pressing the button  Select the instrument hoses flushing time</p> <p>Press the P1 on the dentist's element control panel to start process.</p>	<div><div>Hygiene setup </div><div>SET FLUSHING TIME</div><div>Select the instrument hoses flushing time between 20 to 120 Seconds</div><div>Seconds 30</div><div>Start P1</div></div>	<p>F 50</p>

5. **FLUSHING IN PROGRESS**
– The progress of flushing individual instruments is displayed on the screen.



02 25

6. **FLUSHING SUCCESSFULLY COMPLETED** - Insert the instrument hoses back into the holders.



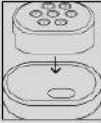

F End

6.2.2 Intensive hygiene

This hygiene has to be started:

- cyclically, at least quarterly,
- at high load by microorganisms,
- after a long break, the recommendation is always if the dental unit has not been worked on for more than three days.

The system ensures the filling of all waterways, including the filling of the cup, with 100% concentrate of disinfectant solution.

	ONE plus display	ONE display
<p>1. PREPARATION - Put the instrument hygiene holder into the bowl.</p> <hr/> <p>Press the P2 on the dentist's element control panel.</p>	<div><p>Hygiene setup</p><p>INTENSIVE HYGIENE</p><p>Insert the hygiene holder into the cuspidor</p><p>Continue P2</p></div>	<p>CLEAN</p>
<p>2. PREPARATION – Put the instrument hoses into the hygiene holder. The number of instruments in the holder</p> <hr/> <p>Press the P2 on the dentist's element control panel.</p>	<div><p>Hygiene setup</p><p>INTENSIVE HYGIENE</p><p>Insert the instrument hoses into the holder Instruments: 3</p><p>Continue P2</p></div>	<p>0 2</p>

Before putting the syringes into the hygiene holder, it is necessary to slide the hoop onto the syringes, which will ensure that the waterway button is pressed.


- i. In the case of instruments on the assistant's element, it is necessary to carry out disinfection manually.*
- i. In the case of a syringe Miniassistant, it must be keep pressed, it does not have a clip.*



ONE plus display

ONE display

3. PREPARATION – Replace the distilled water bottle with a bottle of disinfectant solution.

Press the  on the dentist's element control panel.


Hygiene setup

INTENSIVE HYGIENE
Is disinfection
in the bottle ?

Continue 

bottle

4. FILLING THE
DISINFECTION SOLUTION
– the progress of filling
individual instruments is
displayed on the screen

If necessary, the process
can be stopped by
pressing a button 

Hygiene

CONCENTRATE FILLING


Turbine2

12s

Stop 

02 13

5. SOLUTION IN ACTION –
Now the hoses are filled
with a disinfectant
solution and it is
necessary to let it work.
The solution exposure
time is displayed on the
screen.
At the end of the day, it is
possible to turn off the set
and let the solutions work
until the next day.

After turning on the unit,
same screen is displayed,
and it is necessary to
flush.
Press the button. 

Hygiene

SOLUTION IN ACTION

The dental unit now
can be turned off

00:00

Start flushing 

00-00

00-01

PREPARATION - Check the level of distilled water /

6. Replace the bottle of disinfectant solution with bottle with distilled water

Hygiene setup

FLUSHING

Is water in the bottle?

Continue **P1**

bOttL

Press the **P1** on the dentist's element control panel.

7. FLUSHING TIME

Hygiene setup

SET FLUSHING TIME
Select the instrument hoses flushing time between 20 to 120 Seconds

Seconds 120

Start **P1**

F 120

Press the button to start process **P1**

i. For this type of hygiene, the fixed flushing time is 120 s.
i. Flushing cannot be stopped prematurely. In case of flushing interruption, the system will ensure its correct termination.

	ONE plus display	ONE display
<p>FLUSHING IN PROGRESS</p> <p>8. – The progress of flushing individual instruments is displayed on the screen</p>	<p>Hygiene setup</p> <p>FLUSHING IN PROGRESS Flushing</p> <p>Micromotor1</p> <p>10 s</p>	<p>n2 1 10</p>

-
- FLUSHING
SUCCESSFULLY
9. COMPLETED - Insert the
instrument hoses back
into the holders.
-

Hygiene setup

FLUSHING COMPLETED
SUCCESSFULLY
Insert instrument hoses
into their holders



F End

6.3 Disinfection of instrument cooling waterways – Automatic hygiene

Automatic hygiene of the instrument water paths is controlled by the electronics program. It is available

for dental units equipped with it. To start automatic hygiene, press the button **(1)** on the assistant keyboard. Further instructions must be entered via the dentist control panel.



Automatic hygiene provides four options displayed on the dentist control panel:

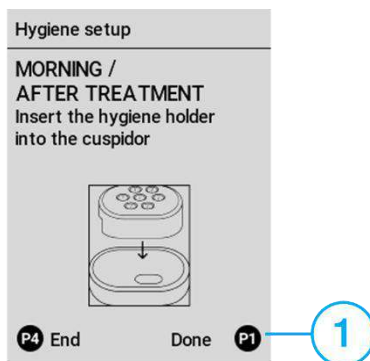
- 1. Morning hygiene / After treatment hygiene
- 2. End of a workday hygiene
- 3. Intensive hygiene
- 4. Suction hygiene

Hygiene	2	
Morning/After treatment hygiene	P1	1
End of a workday hygiene	P2	2
Intensive hygiene	P3	3
Suction hygiene	P4	4

6.3.1 Morning hygiene / After treatment hygiene

i. This hygiene must be started every time if the "End of a workday hygiene" was not performed on the previous working day.

1. PREPARATION – Insert the instrument hygiene holder in the cuspidor bowl and press the button **(1)** on the dentist control panel.



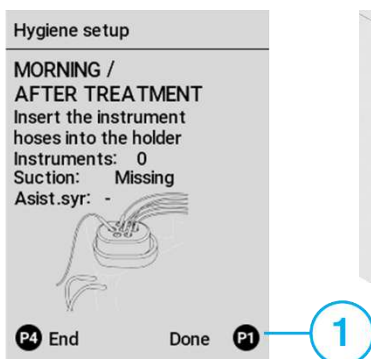
2. PREPARATION – Insert the instrument hoses into the hygiene holder. If the assistant table is equipped with a syringe, it is necessary to insert this syringe into the holder as well. Before inserting the syringes into the hygiene holder, it is necessary to slide the hoop onto the syringes, which ensures that the water path button is pressed.

i. In the case of the Miniassistant syringe, it must be kept pressed, it does not have a hoop



If the dental unit is equipped with suction, it is necessary to slide the suction hoses onto the hygiene mouthpieces as shown in the picture. When the instruments are in the holder, press the P1 button **(1)**


P1

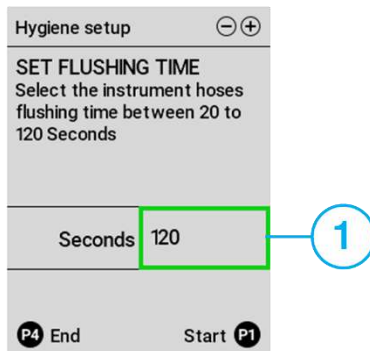


3. **FLUSHING TIME** – select the time for rinsing the instrument hoses by pressing the buttons




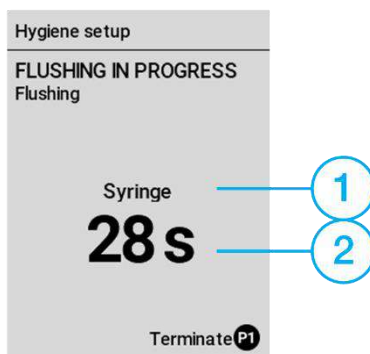
The recommended rinsing time with water from the central distribution is 120 s. If a 1% solution from a bottle is used for cooling, the rinsing time can be shortened to min. 20 s.

4. Press the P1 button  to start the rinsing process.



5. **FLUSHING IN PROGRESS** – the rinsing progress of individual instruments (1) is displayed on the screen (2). If necessary, rinsing can be interrupted at any time and terminated prematurely

by pressing the P1 button .



6. **FLUSHING SUCCESSFULLY COMPLETED** – Rinsing completed, insert the instrument hoses into the holders.



If the automatic hygiene process is stopped, it is necessary to perform the hygiene manually.

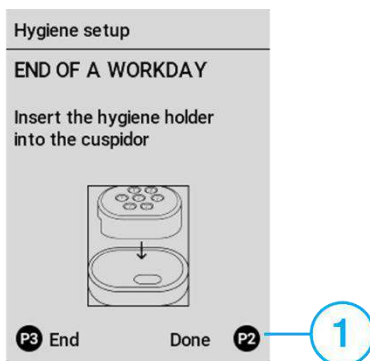


6.3.2 End of workday hygiene

The system will ensure that all water paths, including the cup, are filled with 1% disinfectant solution concentrate.

i. This hygiene must be started every day before the end of working hours.

1. PREPARATION – Insert the instrument hygiene holder in the cuspidor bowl and press the button **P2 (1)** on the dentist's control panel.



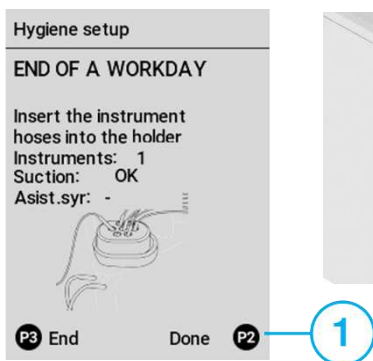
2. PREPARATION – If the assistant table is equipped with a syringe, it is necessary to insert this syringe into the holder. Before inserting the syringes into the hygiene holder, it is necessary to slide the hoop onto the syringes, which ensures that the water path button is pressed.

i. In the case of the Miniassistant syringe, it must be kept pressed, it does not have a hoop.

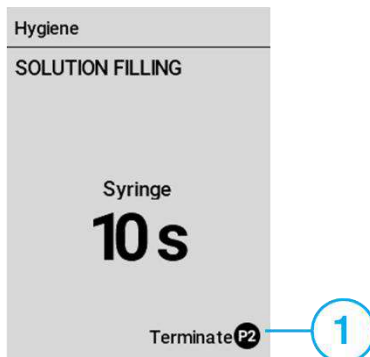


If the dental unit is equipped with suction, it is necessary to slide the suction hoses onto the hygiene mouthpieces as shown in the figure. When the instruments are in the holder, press the P2 button **(1)**

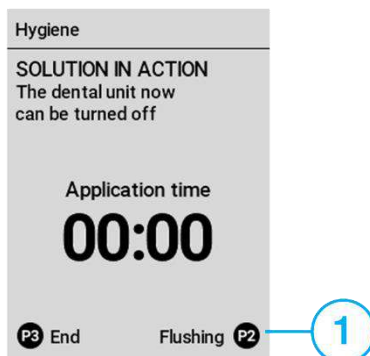
P2



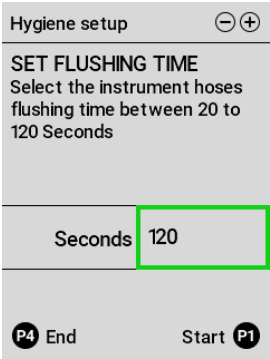
3. **FILLING WITH SOLUTION**- the progress of filling with solution of individual instruments is displayed on the screen. If necessary, rinsing can be interrupted at any time and terminated prematurely by pressing the P2 button (1) .



4. **DISINFECTANT SOLUTION ACTION** – The hoses are now filled with disinfectant solution and need to be left to act. The exposure time is shown on the display. At the end of the day, the set can be switched off and the solutions left to act until the next day.
5. **START FLUSHING** – After switching on the unit, the same screen is displayed. It is necessary to continue flushing. Press the P2 button (1) .



6. **FLUSHING IN PROGRESS** – starting the flush will display the screen for setting the flush time.



If the automatic hygiene process stops, it is necessary to perform the hygiene manually.



6.3.4 Intensive hygiene

This hygiene must be started:

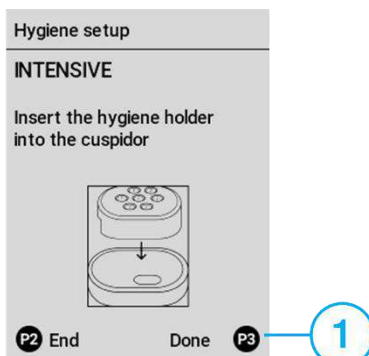
1. cyclically, at least once a quarter,
2. with a high load of microorganisms,
3. after a longer break, it is always recommended if the dental unit is not used for more than three days.

The system ensures that all water paths, including the filling of the cup, are filled with 100% concentrated disinfectant solution.

1. PREPARATION – Place the instrument hygiene holder in the bowl and press the P3 button **(1)**

P3

on the dentist's control panel.



2. PREPARATION – Insert the instrument hoses into the hygiene holder and press the P3 button

P3

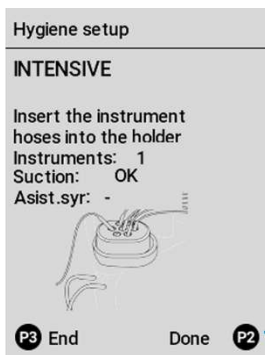
- (1)** . If the assistant table is equipped with a syringe, this syringe must also be inserted into the holder. Before inserting the syringes into the hygiene holder, it is necessary to slide the hoop onto the syringes, which ensures that the water path button is pressed.

i. In the case of the Miniassistant syringe, it must be kept pressed, it does not have a hoop



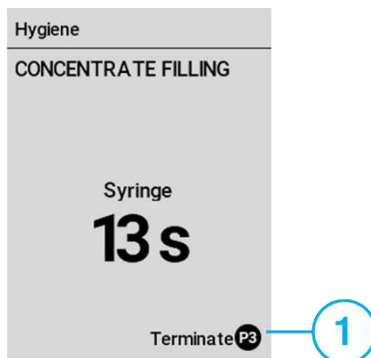
If the dental unit is equipped with suction, it is necessary to slide the suction hoses onto the mouthpieces for hygiene as shown in the picture. When the instruments are in the holder, press the P3

button (1).



3. FILLING WITH 100% CONCENTRATE – the progress of filling the individual instruments with the solution is displayed on the screen. If necessary, rinsing can be interrupted at any time

and terminated prematurely by pressing the P3 button (1).

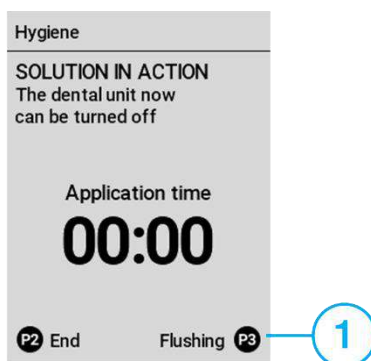




If the automatic hygiene/rinsing process is stopped, it is necessary to perform the hygiene manually.



00% CONCENTRATE ACTION – The exposure time is displayed on the screen. The dental unit can be switched off.



4. START RINSING

i. For this type of hygiene, the rinsing time is fixed at 120 s.

i. Rinsing cannot be terminated prematurely. In the event of interruption of rinsing, the system ensures its correct termination.

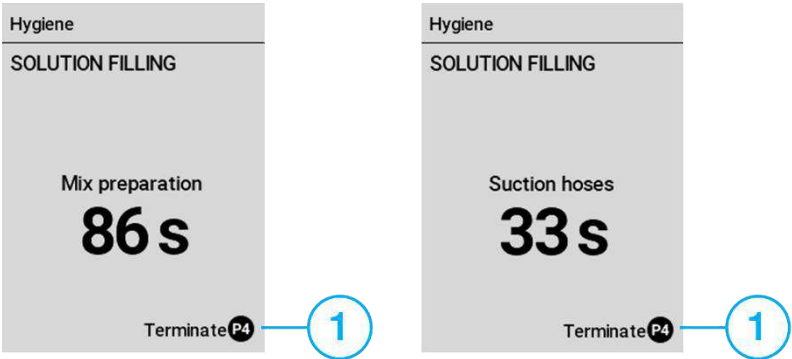
6.3.5 Suction hygiene

i. This hygiene must be started after each patient, if the “Hygiene after the procedure” has not been performed.

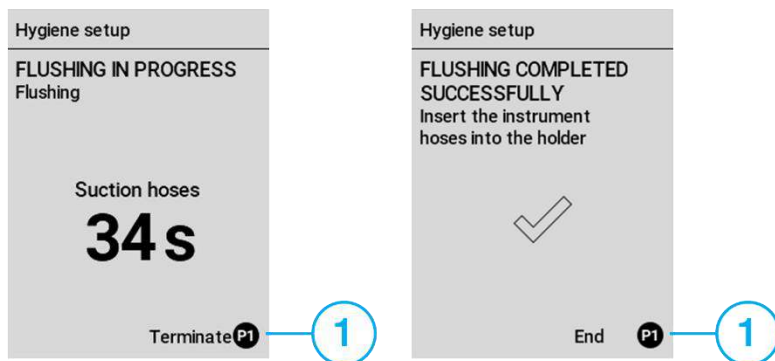
1. PREPARATION – it is necessary to slide the suction hoses onto the hygiene mouthpieces as shown in the picture. When the instruments are in the holder, press the P4 button (1) on the dentist’s control panel.



2. Press the P4 button to start the rinsing process.
3. FILLING WITH SOLUTION - the progress of filling the individual instruments with the solution is displayed on the screen. If necessary, rinsing can be interrupted at any time and terminated prematurely by pressing the P4 button (1).



4. **ACTION OF DISINFECTANT SOLUTION** – The hoses are now filled with disinfectant solution and must be allowed to act. The exposure time is shown on the display. At the end of the day, the set can be switched off and the solutions allowed to act until the next day.
5. **FLUSHING IN PROGRESS** – by starting the flushing, the screen for setting the flushing time will be displayed. To interrupt or end it is necessary to press the P1 button (1).



6.4 Cleaning and decontamination of dental unit components

In addition to automated procedures for waterway hygiene and suction, it is also necessary to perform regular maintenance of the dental unit components, such as suction sieves, valve sieves and separators.

6.4.1 Cleaning and decontaminating the saliva ejector

A sieve is located in the tip of the saliva ejector and must be regularly checked and cleaned as necessary.

The saliva ejector hose must be flushed by drawing through 1 dl of clean water after every patient. At the end of the workday, the saliva ejector hose must be cleaned by drawing through 1 dL of 1% disinfectant solution used for suction system hygiene.

1. Sieve

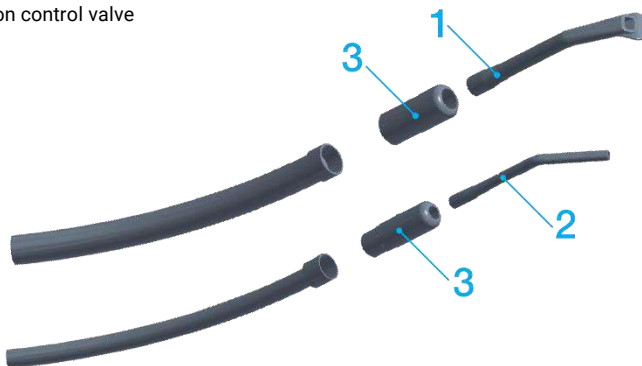


6.4.2 Cleaning and decontaminating the large and small aspirators

Disconnect the suction control dumpers. Clean under running water and fold back.

After each patient, flushing the suction hoses with approximately 1 dl of water. Aspirators tips are sterilizable at a temperature of 135°C.

1. Large aspirator - tip
2. Small aspirator - tip
3. Suction control valve



If the dental unit is not equipped with an automatic decontamination system, it is necessary to perform the hygiene manually. The choice of a suitable hygiene product depends on what other equipment is built into the suction system.

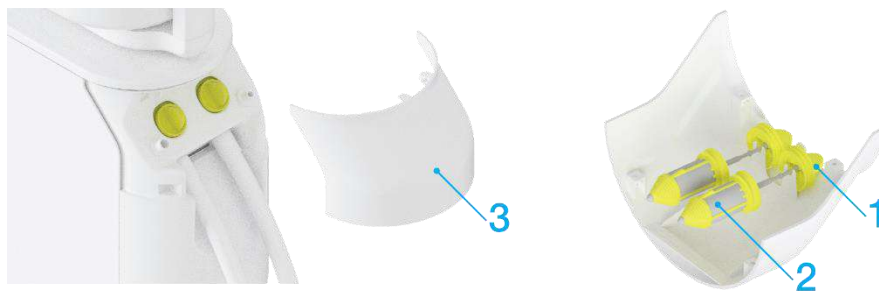
- In case if a CATTANI mini-separator is built into the unit, it is necessary to use PULI - JET PLUS agent.
- In case if a METASYS amalgam separator is built into the unit, GREEN & CLEAN M2 agent must be used.
- In case of DÜRR CAS1 amalgam separator and the DÜRR CS1 separator, OROTOL PLUS or MD 555 must be used.

6.4.3 Cleaning suction filters

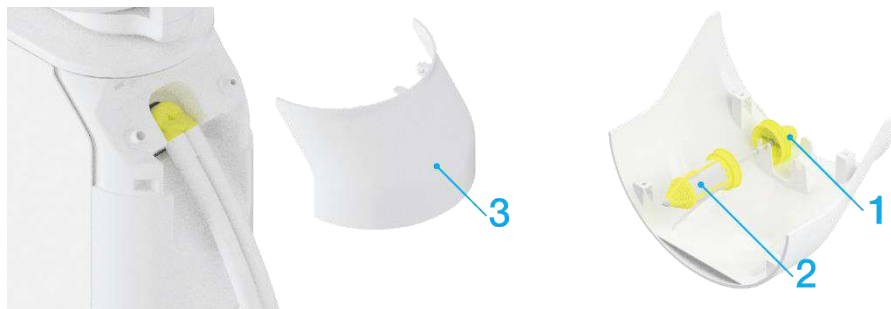
A sieve is located in the suction block to capture coarse particulate and must be regularly checked and cleaned as necessary. Rinse the screen under running water.

i. Cleaning is recommended at least once a day.

1. Plug
2. Sieve
3. Cover



Version with two separate filters of a large and a small aspirator.

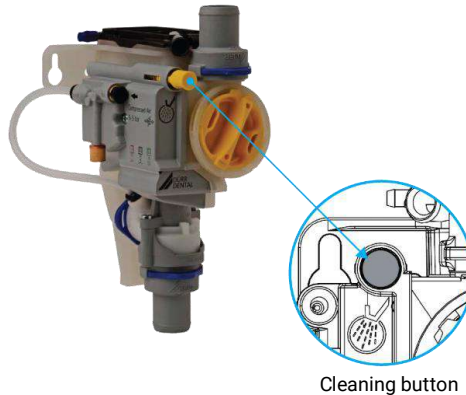


Version with a common filter of the large and small aspirator

6.4.4 Cleaning and disinfecting Dürr valves

For cleaning and decontamination, it is necessary:

A compatible material, non-foaming disinfecting/cleaning solution approved by the manufacturer, Dürr Dental, such as Orotol plus, Orotol Ultra or MD 555.



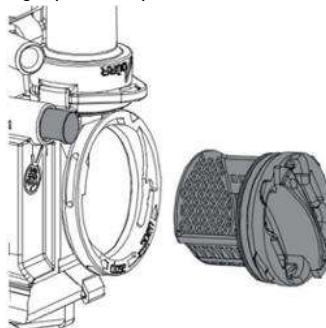
Procedure:

1. Start the cuspidor bowl rinse.
2. Press and hold the yellow cleaning button on the control panel until the cuspidor bowl rinse is complete.
3. Pour the disinfection solution into the cuspidor bowl and then press the valve cleaning button (picture above), until the disinfection solution is completely aspirated.

Monthly maintenance:

1. Press the valve cleaning button until the collection vessel is emptied by the valve.
2. Clean out the yellow coarse filter or replace if necessary.

The yellow coarse filter prevents larger pieces of particulate from entering into the suction system.



Malfunction or damage to the equipment resulting from the use of incompatible supplies and materials may void the warranty



- Do not use any foaming products, such as household cleaning products.
- Do not use abrasive cleaning products.
- Do not use cleaning agents containing chlorine.
- Do not use any solvents such as acetone.

6.4.5 Cleaning and decontamination of the cuspidor bowl

Operating personnel must inspect the condition of the coarse catch sieve in the cuspidor bowl and clean as needed.

If the dental unit is only equipped with a saliva ejector, use a 1% decontamination solution of SAVO Prim (Czech Republic). Decontamination of the cuspidor bowl must be conducted at least once a day (for instance, at the end of the workday) using SAVO Prim in a 1% concentration by pouring at least 200 ml of the solution into the cuspidor bowl.

If the dental unit is equipped with an aspirator, the proper cleaning solution depends on the type of separator built into this unit.

- Use PULI-JET PLUS if a CATTANI separator is installed.
- Use GREEN & CLEAN M2 if a METASYS amalgam separator is installed.
- Use OROTOL PLUS or MD 555 if a DÜRR CAS 1 amalgam separator and DÜRR CS 1 separator is installed.

6.4.6 Cleaning and decontamination when using a CATTANI separator

Instructions for using anti-foaming CATTANI disinfection tablets for dental aspirators

i. See the enclosed Instructions for use for CATTANI disinfection tablets

Turbulent flow is generated when working with an aspirator to remove blood, saliva and all types of sanitary products create a large quantity of foam that may cause sudden and frequent suction blockages.

Regular use of anti-foaming tablets significantly reduces the occurrence of such stoppages.

Tablets are individually wrapped in a protective film that dissolves in water and ensures easy and safe handling and storage; the product itself is not classified as hazardous or dangerous. Do not remove this protective film as it will dissolve in water.

Aspirating a small quantity of water through the end of the large or small aspirator after placing the tablet inside the screen of the separation block is sufficient to achieve an instantaneous and preventative anti-foaming effect.

If the tablet must be inserted into a small space, remove the protective film (wearing gloves is recommended) and break it into two pieces by snapping along the pre-stamped indentation. Clean the film off the agent using a fine sandpaper to ensure it works properly. The tablet dissolves slowly after making contact with water and releases its disinfecting and anti-foaming effect over the entire workday.

Instructions for using PULI-JET PLUS

i. See the enclosed Instructions for use for PULI - JET PLUS

The separator's manufacturer recommends disinfecting the suction system daily at the end of the workday and at least once clean-out washing in the middle of the day. Filling the dispenser: place the container in a vertical position, preferably on a flat surface. Unscrew the cap and slightly press on the container at the locations marked with the two stickers to fill the dispenser up to the top (being careful not to overfill it).

Release the pressure: return any excess liquid back to the container, ensuring the correct quantity (10 ml) of concentrate remains in the dispenser. Concentrated PULI-JET PLUS after thinning to a 0.8% solution cleans and disinfects, while it is only a sanitary cleaning product when thinned to 0.4%.

For cleaning and disinfection once daily at the end of the workday, thin out two batches (20 ml) from the dispenser in 2.5 l of warm water (50°C) and aspirate it through the system. Thin out one batch (10 ml) from the dispenser for cleaning of the system in the middle of the day. Do not rinse as the proteolytic and disinfectant effects of PULI-JET PLUS appears over time.

6.4.7 Cleaning and decontamination of the METASYS MST1 amalgam separator

Instructions for using GREEN & CLEAN M2

i. See the enclosed Instructions for use for GREEN & CLEAN M2

Press the lever on the dispenser twice to dispense 6 ml of GREEN & CLEAN M2 into the mixing container and add water from the tap up to the mark. Mix the solution and then use the small and large aspirators to draw the solution in through the aspiration openings in the container. Once it is fully drained, remove the port from the container, raise it up higher so that the fluid drains from the hose into the drain pipe and into the separator. Pour the remainder of the solution in the container out into the cuspidor bowl and rinse with a small quantity of water.

The separator's manufacturer recommends using GREEN & CLEAN M2 **2 x** during the workday.

6.4.8 Cleaning and decontamination of the DÜRR CAS1 amalgam separator and the DÜRR CS1 separator

Instructions for using Orotol Plus

i. See the enclosed Instructions for use for Orotol Plus

Before every use of Orotol Plus, aspirate 1 l of clean cold water through the hose of the large and small aspirator (using the Oro Cup container for this purpose). The disinfection procedure using Orotol Plus is as follows:

1. Unscrew the cap on the Oro Cup container,
2. pour 2 l of cold water into the Oro Cup (up to the mark),
3. add the required quantity of Orotol Plus, meaning two measured units (one unit up to the mark on the Orotol Plus cover is 20 ml of the solution),
4. screw the cap on the Oro Cup container,
5. mix the disinfectant with water in the Oro Cup thoroughly,
6. remove the cap on the Oro Cup cover,
7. place the Oro Cup vertically (as depicted on the Oro Cup). Aspirate 1 l of the mixed solution with the Oro Cup in this position through the aspirator hoses (0.5 l through the large aspirator hose and 0.5 l through the small aspirator hose),
8. install the aspirator hose adapter onto the tip on the Oro Cup,
9. pour the remainder of the thinned solution (approximately 1 l) from the Oro Cup into the cuspidor bowl and rinse with a small quantity of water,
10. we recommend disinfecting the suction and drain system using Orotol Plus at least once a day (ideally at the end of every workday),
11. aspirate 1 l of clean cold water through the large and small aspirator hoses at the start of the following workday.

6.4.9 Cleaning, disinfection and decontamination of other parts of the dental unit

- Use a damp cloth to clean all surfaces of the unit, the tablet and the chair upholstery
- Recommended cleaner: Incidin™ Foam – spray (HENKEL – ECOLAB)
- Performing cleaning on a regular basis and any time soiling occurs



Upholstered parts should not be cleaned with products, which contain more than 10% of alcohol and products that damage the structure of the upholstery itself, such as acetone, trichloroethylene, tetrachloroethylene, abrasive cleaners, or polish.

Other parts should not be cleaned with products that damage the structure of fabric or plastics (phenol and aldehyde-based products).

Clean at least once daily (depending on configuration):

- the separation block sieve installed in the cuspidor block
- the sieve at the inlet to the amalgam separator
- the saliva ejector sieve
- the large and small aspirator sieves
- the sieve in the cuspidor bowl



6.4.10 Instruments and nozzles

Cleaning, disinfection and sterilization of instruments and their nozzles must be performed according to the instructions of their manufacturer, which is supplied with the instrument.

i. The foot controller may not be placed on a wet floor.

i. The manufacturer is not liable for damages resulting from the use of other disinfectants and cleaning supplies not recommended for use.

6.5 Preparation before long-term shutdown of the unit

Before the expected long-term shutdown of the dental unit, it is necessary:

- Carry out hygiene at the end of the working day
- Empty all bottles in the spittoon block of the dental set, clean the waterways, dry
- Choose coarse particle filters, suction system sieves
- Turn off the unit, monitor
- Shut off the water and air supply

Before using the unit again, it is necessary to:

- Start the water and air supply
- Turn on the set
- Rinse the filters and sieves, put them on
- Fill the bottles and put them in place
- Perform Intensive Hygiene to remove biofilm (according to chap., 6.2.2, 6.2.4. or 6.3.4)

7 Warranty, service and disposal of goods

7.1 Service



Use only original and approved spare parts and components, without changing performance, safety characteristics or intended purpose of medical device.

Contact your service technician or seller in the event of a malfunction.

7.1.1 Service inspections during the warranty period

It is recommended to perform a regular service inspection every 3 months.

The service inspection is focused on checking of:

- input filters,
- suction system,
- waste hose,
- all media,
- the correct use and maintenance of the unit and instruments; and
- mechanical parts of the chair.

I. The service technician is obliged to confirm the performed inspection in the Warranty certificate.

7.1.2 Service inspections after the warranty period

It is recommended to perform a regular service inspection every 6 months.

Post-warranty service inspection is focused on checking of:

- water and air filters,
- integrity of electrical parts and installation,
- functional parts of a dental unit,
- adjustment of working water and air pressures.

7.2 Electrical safety inspection

It is performed according to the regulations of the country in which the unit is installed.

7.3 Warranty

The manufacturer provides a warranty for the product according to the Warranty certificate.

The risk of damage to the goods passes from the seller to the buyer at the time of delivery of the goods to the first carrier for transport to the buyer, or at the time of taking over the goods directly by the buyer.

When taking over the product for use, the buyer shall be obliged to write out the warranty form and send it back to the manufacturer.



Faults caused by careless operation or disregard of the instructions in the Operating instructions will not be recognized as the subject of a warranty claim.

The manufacturer reserves the right to make changes as part of product innovation.

7.4 Disposal of the equipment

Part of the unit	Basic material	Recyclable material	Landfill waste	Hazardous waste
Frame and covers				
• Metal	Steel	✓		
	Aluminium	✓		
	Brass	✓		
• Plastics	PVC	✓		
	PA, ABS	✓		
	Fiberglass		✓	
	POM	✓		
	PA6	✓		
	PP	✓		
	ASA			
	Teflon		✓	
• Rubber			✓	
• Ceramics			✓	
Upholstery	PUR		✓	
	Foam		✓	
	Leatherette		✓	
Instruments			✓	
Electronics		✓		
Cables	Copper	✓		
Transformer		✓		
Amalgam separator	Filters			✓
	Collection container with amalgam			✓
Crate	Wood	✓		
	Cardboard	✓		
	Carton	✓		
	PUR		✓	
	Nopafoam	✓		
	PVC foil	✓		
	VCL foil	✓		
	Hardboard		✓	
	PET tape		✓	

Do not dispose with municipal solid waste!



Such waste may be taken to designated locations, for instance electrical waste. Comply with all applicable legislation in the disposal of the dental unit.

The unit must be decontaminated prior to disassembly: clean the surface, clean the suction and drain system, remove amalgam from the separator and handover to a disposal service.

A professional company should be entrusted with disposal.

8 Packed contents, packing and transport

8.1 Packaging content

Basic configuration:	Options:
Dental chair	Right/left hand-rest
Dentist's panel with arm	Tray table (Post, Dentist's control panel – side table)
Cuspidor with assistant's element	Monitor arm and monitor
Cuspidor bowl	Instruments
Lamp arm holder, lamp	
Foot controller	
Tray table (Dentist's control panel)	
	Accompanying documentation:
	Instructions for use
	Warranty certificate
	Instructions from suppliers
	Completion sheet
	Registration form

8.2 Transport and storage conditions

- Transport in covered vehicles.
- Stack according to the instructions on the package.
- Securing against movement.
- Packages with units must not be spontaneously tipped or lowered.

- Storage in a dry, covered place without sudden changes in temperature.
- Stack according to the instructions on the package.
- The units must not be stored together with chemicals.

Parameter	Value
Ambient temperature	-25 – 50 °C
Relative humidity	5 – 95 % non-condensing humidity
Atmospheric pressure	700 – 1060 hPa

8.3 MODEL ONE 100 package weight

Unit part packaging

CONTINENTAL PACKAGING

Packaging pallet + crate blanks	A653-950-001-0
External dimensions	1580x1080x v:680mm
Weight of the set netto	80 kg + max. 35 kg according to the design
Weight of the set brutto	140 kg + max. 35 kg according to the design

OVERSEAS PACKAGING

Packaging pallet + crate blanks / dried /	A653-950-002-0
External dimensions	1580x1080x v:680mm
Weight of the set netto	80 kg + max. 35 kg according to the design
Weight of the set brutto	140 kg + max. 35 kg according to the design

Chair part packaging

CONTINENTAL PACKAGING

Packaging pallet + crate blanks	A516-400-004-1
External dimensions	1550x800x v:870mm
Weight of the chair part netto	110 kg + max. 15 kg according to the design
Weight of the chair part brutto	160 kg + max. 15 kg according to the design

OVERSEAS PACKAGING

Packaging pallet + crate blanks / dried /	A516-400-005-1
External dimensions	1550x800x v:870mm
Weight of the chair part netto	110 kg + max. 15 kg according to the design
Weight of the chair part brutto	160 kg + max. 15 kg according to the design

Packaging of separate upholstery

PACKAGING	
Packaging cardboard box	A516-400-003-0
External dimensions	1400x650x v:450mm
Package weight / brutto /	20 kg + max. 5kg

Base board packaging overseas

PACKAGING	
Packaging pallet + crate blanks / dried /	A516-400-012-0
External dimensions	1580x1070x v:235mm
Weight of the board brutto	86 kg + max. 5 kg

i. Packaging is non-returnable

8.4 MODEL ONE 200 package weight

Unit part packaging

CONTINENTAL PACKAGING

Packaging pallet + crate blanks	A655-950-007-0
External dimensions	1580x1080x v:760mm
Weight of the set netto	40 kg + max. 35 kg according to the design
Weight of the set brutto	100 kg + max. 35 kg according to the design

OVERSEAS PACKAGING

Packaging pallet + box blanks / dried /	A655-950-010-0
External dimensions	1580x1080x v:760mm
Weight of the set netto	40 kg + max. 35 kg according to the design
Weight of the set brutto	100 kg + max. 35 kg according to the design

Packaging of the chair part

CONTINENTAL PACKAGING

Packaging pallet + crate blanks	A655-950-011-0
External dimensions	1250x1000x v:1230mm
Weight of the chair part netto	125 kg + max. 15 kg according to the design
Weight of the chair part brutto	185 kg + max. 15 kg according to the design

OVERSEAS PACKAGING

Packaging pallet + box blanks / dried /	A655-950-012-0
External dimensions	1250x1000x v:1230mm
Weight of the chair part netto	125 kg + max. 15 kg according to the design
Weight of the chair part brutto	185 kg + max. 15 kg according to the design

Packaging of separate upholstery

PACKAGING	
Packaging cardboard box	A516-400-003-0
External dimensions	1400x650x v:450mm
Package weight brutto	20 + max. 5kg

Base board packaging overseas

PACKAGING	
Packaging pallet + box blanks / dried /	A516-400-014-0
External dimensions	1250x1000x v:235mm
Weight of the board brutto	75 kg + max. 5 kg

i. Packaging is non-returnable

9 Electromagnetic compatibility requirements according to EN 60601-1-2



Use of any accessories not specified in the manual for the dental unit may increase electromagnetic emissions or reduce electromagnetic immunity and result in malfunction of this device.



A portable radio frequency communication device may not be used at any distance of less than 30 cm from any part of the dental unit. The functionality of this device might otherwise be degraded.


9.1 Electromagnetic radiation

Measurement of interfering RF radiation	Concordance	Electromagnetic environment
High-frequency emissions according to CISPR11	Group 1	The dental unit uses high-frequency energy only for its function. Its high-frequency radiation is very low and is unlikely to cause interference to nearby electrical devices.
High-frequency radiation according to CISPR11	Class B	The dental unit is designed for use in all environments, including residential areas, and can be connected directly to a public low-voltage distribution network.
Emission limits of harmonic current components EN 61000-3-2	Class A	
Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage distribution networks EN 61000-3-3.	Conforms	

9.2 Electromagnetic resistance

The dental unit is designed for use in an electromagnetic environment that meets the requirements in Table. The customer or user must ensure the dental unit is operated in such an environment.

Resistance test	Test level according to EN 60601	Concordance	Electromagnetic environment
Resistance to electrostatic discharge according to EN 61000-4-2.	Contact discharge ± 6 kV Air discharge ± 8 kV	Contact discharge ± 6 kV Air discharge ± 8 kV	Floors should be wooden, concrete or made of ceramic materials. If floors are covered with synthetic material, the air relative humidity should be at least 30%.
Resistance to fast electrical transients / impulse groups according to EN 61000-4-4.	± 2 kV for power cables ± 1 kV for power cables	± 2 kV for power cables ± 1 kV for power cables	The quality of the power supply should correspond to typical commercial or hospital environment.
Resistance to impact impulses according to EN 61000-4-5.	± 1 kV symmetrical voltage ± 2 kV analogous voltage	± 1 kV symmetrical voltage ± 2 kV analogous voltage	The quality of the power supply should correspond to typical commercial or hospital environment.
Resistance to magnetic field with mains frequency according to EN 61000-4-8.	3 A/m	3 A/m	Mains frequency magnetic fields should not exceed the typical value for commercial and hospital environments.
Resistance to short-term voltage drops, short interruptions and voltage fluctuations according to EN 61000-4-11.	< 5% UT (> 95% short-term drop in UT over 0.5 period) < 40% UT (> 60% short-term drop in UT over 5 periods) < 70% UT (> 30% short-term drop in UT over 25 periods) < 5% UT (> 95% short-term drop in UT over 5 period)	< 5% UT (> 95% short-term drop in UT over 0.5 period) < 40% UT (> 60% short-term drop in UT over 5 periods) < 70% UT (> 30% short-term drop in UT over 25 periods) < 5% UT (> 95% short-term drop in UT over 5 period)	The quality of the power supply should correspond to typical commercial or hospital environment. If the user needs continuous operation during a power outage, it is recommended that the unit be connected from a backup source.

Resistance to interference induced by high-frequency fields, propagated by lines according to EN 61000-4-6.	3 Veff 150 kHz to 80 MHz	3 Veff	Portable and mobile high-frequency communication devices should not be used at a distance less than the recommended distance calculated according to the relevant equation for the transmission frequency.
Resistance to radiated high-frequency electromagnetic field according to EN 61000-4-3.	3 V/m 80 MHz to 2.5 GHz	3 V/m	<p>Recommended minimum distances:</p> <p>$d=1.167 \sqrt{P}$ 150 kHz to 80 MHz</p> <p>$d=1.167 \sqrt{P}$ 80 MHz to 800 MHz</p> <p>$d=2.333 \sqrt{P}$ 800 MHz to 2.5 GHz</p> <p>P [W] - rated maximum output power d [m] - recommended protection distance</p> <p>The field strength from fixed transmitters should be below the appropriate level in each frequency band.</p> <p>Around the device marked with the symbol</p> <div></div> <p>interference may occur.</p>

i. The band 80 MHz to 800 MHz applies to the 80 MHz frequency and the band 800 MHz to 2.5 GHz applies to the 800 MHz frequency.



These guidelines may not necessarily be applicable in all situations.
The propagation of electromagnetic fields is affected by absorption and reflection from buildings, objects and people

The field strength of stationary transmitters such as base stations for cordless telephones, mobile radio communication apparatuses, amateur radio stations, radio and television transmitters, etc. is not possible to theoretically determine in advance. To evaluate the electromagnetic environment from the stationary transmitters point of view, it is appropriate to consider measuring electromagnetic fields. If the measured intensity of the electromagnetic field at the location of the dental unit exceeds the above levels, its correct function must be verified. If abnormal behavior of the dental unit occurs, the unit must be installed at some other place.
In the range from 150 KHz to 80 MHz, the field strength should be less than 3 V / m.

9.3 Recommended safety distances between portable high-frequency communication devices and the dental unit

The dental unit is designed for use in an electro-magnetic environment in which high-frequency interference emissions are under control. The customer or user may prevent such electromagnetic interference by maintaining minimum distances between portable high-frequency communication devices and the dental unit pursuant to Table 9.3.

Rated maximum output power of the transmitter P[W]	Protective distance depending on the frequency of the transmitter d[m]		
	150 kHz to 80 MHz d=1,167 \sqrt{P}	80 MHz to 800 MHz d=1,167 \sqrt{P}	800 MHz to 2,5 GHz d=2,333 \sqrt{P}
0,01	0,117	0,117	0,233
0,1	0,369	0,369	0,738
1	1,167	1,167	2,333
10	3,69	3,69	7,377
100	11,67	11,67	23,33

P[W] - rated maximum output power
d[m] - recommended protective distance

For transmitters with a maximum power not listed in the table, the distance is calculated according to the formula given in the table at the appropriate frequency.

i. The band 80 MHz to 800 MHz applies to the 80 MHz frequency and the band 800 MHz to 2.5 GHz applies to the 800 MHz frequency.



These guidelines may not necessarily be applicable in all situations.
The propagation of electromagnetic fields is affected by absorption and reflection from buildings, objects and people



DIPLOMAT DENTAL s.r.o.
VRBOVSKÁ CESTA 17
921 01 PIEŠŤANY
SLOVAK REPUBLIC



Discover satisfaction.

DX/ DX BLUE/ DX PRO/ DX PRO BLUE/ DX SRG

Информация о продукте

1 Перед началом эксплуатации

Мотор соответствует всем требованиям, предъявляемым к современному оборудованию, в том числе требованиям стандарта ISO 14457. Для получения более подробной информации обращайтесь пожалуйста к инструкции по применению стоматологической установки.

1. Перед началом эксплуатации мотора DX / DX BLUE / DX PRO / DX PRO BLUE / DX SRG внимательно ознакомьтесь с настоящим Информацией о продукте.
2. Данный мотор предназначен для использования исключительно в целях, указанных в настоящей Информации о продукте.
3. Во избежание травм при эксплуатации изделия необходимо соблюдать соответствующие гигиенические нормы, правила техники безопасности и меры предосторожности.

Мотор предназначен для работы с прямыми и угловыми наконечниками, используемыми в стоматологии для выполнения обычных терапевтических и хирургических эндодонтических процедур.

Целевая аудитория

Настоящее изделие предназначено исключительно для опытного медицинского персонала стоматологических клиник и лабораторий.

1.1 Структура документа

1.1.1 Используемые обозначения

→ Во избежание травм необходимо строго следовать предупреждениям, содержащимся в настоящем руководстве.

Предупредительная информация, приводимая в руководстве, помечена следующим образом:

▲ ПРЕДОСТЕРЕЖЕНИЕ! Предупреждает о потенциально опасной ситуации, которая может привести к травмам легкой или средней тяжести.

→ Во избежание материального ущерба и дополнительных затрат необходимо строго соблюдать инструкции, содержащиеся в настоящем руководстве. Указания по применению обозначены следующим образом:

УВЕДОМЛЕНИЕ! Указывает на меры по предотвращению возникновения материального ущерба.

ВАЖНО. Указывает на способы предотвращения дополнительных расходов, а также на прочую информацию.

Совет. Содержит сведения, облегчающие работу.

1.1.2 Форматы и символы

Форматы и символы, используемые в настоящем руководстве, определяются следующим образом:

✓ Предпосылка 1. Первый шаг 2. Второй шаг Или ► Альтернативное действие (мера) ► Результат → Отдельный шаг операции	Требования по выполнению определенных действий
Используемые форматы и символы [→5].	Обозначает ссылку на другое место в тексте и номер соответствующей страницы
Список	Определяет список

1.2 Срок службы моторов DENSIM

При использовании по назначению:

- срок службы неподвижных частей моторов DENSIM составляет около 5 лет;
- обычный срок службы подвижных частей моторов DENSIM составляет приблизительно 3 года.

В зависимости от способа использования изделия (частоты использования, стерилизации и ухода) его износ может наступить раньше или позже. Поэтому претензии, предъявляемые по истечении гарантийного периода, не рассматриваются.

2 Информация по технике безопасности

Обязанности пользователя:

- Используйте исключительно изделия, находящиеся в исправном состоянии и соответствующие регулярному сервисному обслуживанию в соответствии с пунктом [→8].
- Оберегайте себя, своих пациентов и других людей от опасности, которую можно предвидеть. Действуйте в соответствии с инструкциями по технике безопасности.
- Используйте изделие исключительно по назначению.
- Примите необходимые меры, чтобы предотвратить распространение инфекции и перекрестное загрязнение.

Также примите необходимые меры, чтобы предотвратить распространение инфекции и перекрестное загрязнение между пациентами и прочими лицами. После каждого применения изделие необходимо тщательно очистить и продезинфицировать. Рекомендуется ежедневная стерилизация.

Соблюдайте правила личной гигиены. Например, носите защитные перчатки.

УВЕДОМЛЕНИЕ! Устройство содержит светодиод излучающий оптическое излучение в Ультразвуковой области спектра, излучающий оптическое излучение в соответствии с линией класса I, нормы IEC 62471: 2006. Оптическое излучение потенциально опасно. Минимизируйте его воздействие на глаза и кожу. Используйте подходящее средство защиты.

Неисправности и повреждения

В случае неисправности, повреждения или появления непривычного звука немедленно прекратите работу. Использование поврежденного мотора может привести к получению травмы. Свяжитесь с заводом-изготовителем или обратитесь в ближайший сервисный центр.

Опасность взрыва

Не используйте изделие во взрывоопасных помещениях.

Ремонт

Не производите ремонт мотора самостоятельно.

Запасные части и принадлежности

Используйте только запасные части, произведенные или утвержденные компанией DIPLOMAT DENTAL. Безопасная эксплуатация изделия после установки компонентов, не утвержденных компанией DIPLOMAT DENTAL, не гарантируется.

Если у вас возникли вопросы, обращайтесь к изготовителю.

3 Техническое описание

3.1 Назначение

Мотор служит для преобразования электрической энергии стоматологической установки в кинетическую с последующей передачей вращательного движения на наконечник.

3.2 Конструкция мотора



3.3 Маркировка изделия

На корпусе или на упаковке мотора приводится следующая информация:

- название изделия;
- год выпуска;
- заводской номер;
- символ допустимых параметров стерилизации.

3.4 Технические данные мотора

	DX DX BLUE	DX PRO DX PRO BLUE	DX SRG
Длина в мм	~45	~45	~61
Макс. диаметр, мм	~21,8	~21,8	~21,8
Макс. скорость, об/мин	~40 000	~40 000	~40 000
Крутящий момент, Нм	~2,5	~3,5	~5
Максимальная мощность, Вт	~60	~80	~80
Функция распыления	Да	Да	-
Функция антирефлексивного клапана	Да	Да	Да
Функция подсветки	Да	Да	Да
Держатель наконечника ISO 3964	Да	Да	Да
Держатель наконечника INTRAMatic Lux®	Да	Да	-

INTRAMatic Lux® является торговой маркой компании Kaltenbach & Voigt / Biberacht / DE

3.5 Технические данные установки

	DX DX BLUE	DX PRO DX PRO BLUE	DX SRG
Базовый модуль мотора	Модуль DX	Модуль DX PRO	Модуль DX PRO
Рекомендуемая мощность, В·А	100	100	120
Максимально допустимая сила тока, А	7	7	7
Ток светодиода, А	<0,3	<0,3	<0,3
Скорость потока охлаждающего воздуха, мл/мин	8	8	-
Давление охлаждающего воздуха, бар	2,2-3	2,2-3	2,2-3
Расход охлаждающего воздуха, мл/мин	20±0,3	20±0,3	20±0,3
Давление распыления, бар	2,7±0,2	2,7±0,2	-
Скорость потока самотока воздуха для распыления, мл/мин	>1,5	>1,5	-
Давление охлаждающей воды, бар	2±0,2	2±0,2	-
Скорость подачи воды, мл/мин	>100	>100	-
Рекомендуемая скорость подачи Охлаждающей воды, мл/мин	>50	>50	-

4 Подготовка к работе

4.1 Первый запуск и длительные перерывы в работе

- ✓ Перед первым использованием мотор и соответствующие аксессуары необходимо протестировать.
- ✓ После длительных перерывов в работе мотор также необходимо тщательно очистить и протестировать.

4.2 Перед началом рабочего дня

- ✓ Промойте водные и воздушные каналы мотора в течение 30 с, используя его вне полости рта пациента.

5 Обслуживание

▲ ПРЕДОСТЕРЕЖЕНИЕ! Не подсоединяйте и не отсоединяйте питающий кабель во время работы мотора! Опасность получения травмы!

▲ ПРЕДОСТЕРЕЖЕНИЕ! Недостаточное охлаждение может привести к перегреву и повреждению обрабатываемых стоматологических материалов. Убедитесь, что скорость подачи охлаждающей воды больше 50 мл/мин.

▲ ПРЕДОСТЕРЕЖЕНИЕ! Если при повышенной нагрузке мотор перегревается, остудите его, оставив работать на холостом ходу с половинной скоростью, прежде чем продолжить работу.

УВЕДОМЛЕНИЕ! Никогда не используйте мотор без подачи охлаждающего воздуха (кроме DX SRG). Кратковременное применение без охлаждения возможно только в случаях, установленных изготовителем.

5.1 Присоединение мотора к питающему шлангу

- ✓ Передвиньте фиксирующую гайку на муфту шланга.
- 1. Потяните наконечник шланга, чтобы открыть коннектор.
- 2. Присоедините коннектор шланга к мотору.
- Прижав до упора. Следите при этом за расположением контактных штырей трубки.
- ✓ Стрелка на муфте шланга и шили мотора должны быть направлены в противоположных направлениях.
- 3. Осторожно поворачивая наконечник шланга против часовой стрелки, наденьте его на резьбу в задней части мотора.
- 4. Плотно затяните резьбу.
- В месте присоединения шланга к мотору появилась утечка воды?
- 1. Отсоедините шланг от мотора.
- 2. Повторно присоедините шланг к мотору и проверьте правильность присоединения.
- 3. Если утечку не удалось устранить, замените уплотнительную прокладку [→9].

5.2 Замена наконечника

▲ ПРЕДОСТЕРЕЖЕНИЕ! Присоединение и отсоединение мотора от питающего шланга можно производить только при неработающем моторе.

Наденьте наконечник на микромотор

- ✓ Мотор должен находиться в отключенном состоянии.
- 1. Если наконечник снабжен штифтом (шпилькой) для включения подсветки микромотора (А), вставьте его в паз мотора (В).
- 2. Поворачивайте наконечник до тех пор, пока он не окажется в нужном положении.

Снятие наконечника с мотора:

- ✓ Мотор должен быть отключен.
- 1. Отсоедините наконечник.

ПРЕДОСТЕРЕЖЕНИЕ! Не тяните за питающий шланг во время данной операции.

6 Следующие шаги

6.1 После каждого использования мотора

ПРЕДОСТЕРЕЖЕНИЕ! Сразу же или в течение часа после окончания работы необходимо выполнить указанные ниже действия.

- ✓ Используйте соответствующую защитную одежду.
- 1. Промойте воздушные и водные шланги в течение 30 с.
- 2. Отсоедините наконечник от мотора.
- 3. Протрите поверхность мотора [→7].
- 4. Отсоедините питающий шланг.
- 5. Отправьте мотор в помещение для стерилизации в соответствующем транспортном контейнере.
- 6. Произведите ручную дезинфекцию в соответствии с местными правилами [→7].
- 7. Протестируйте мотор [→7].

6.2 В конце рабочего дня

ПРЕДОСТЕРЕЖЕНИЕ! Не оставляйте наконечники на моторе на ночь, чтобы смазка не попала внутрь мотора. Никогда не сдвигайте электрический микромотор.

6.3 Раз в неделю

- ✓ Проверьте работу мотора.
- Смажьте предохранительную прокладку [→8.1].

7 Требования

7.1 Проведение предварительной дезинфекции

- ✓ Используйте соответствующую защитную одежду.
- ✓ Применяемые дезинфицирующие средства должны быть одобрены в вашей стране, а также должны обладать надлежащими бактерицидными, фунгицидными и вируцидными свойствами. Используйте только дезинфицирующие средства, не фиксирующие белковые загрязнения.
- ✓ Не пользуйтесь дезинфицирующими и прочими средствами, оказывающими коррозионное воздействие, например хлориды.
- 1.1 Нанесите на поверхность мотора дезинфицирующее средство.
- 1.2 Протрите специальной салфеткой.
- Перед дальнейшим использованием убедитесь, что мотор совершенно сух и на нем нет остатков дезинфицирующих средств.
- При использовании дезинфицирующих средств строго соблюдайте инструкции изготовителя

7.2 Ручная чистка и дезинфекция

УВЕДОМЛЕНИЕ! Данные операции необходимо выполнить сразу же или в течение часа после окончания работы.

УВЕДОМЛЕНИЕ! Запрещается помещать мотор в устройство ультразвуковой очистки или в ультразвуковую ванну!

УВЕДОМЛЕНИЕ! Запрещается погружать мотор в дезинфицирующий раствор!

- ✓ Используйте соответствующую защитную одежду.
- ✓ Применяемые дезинфицирующие средства должны быть одобрены в вашей стране, а также должны обладать надлежащими бактерицидными, фунгицидными и вируцидными свойствами.
- ✓ Используйте только дезинфицирующие средства, не фиксирующие белковые загрязнения.

1. Нанесите дезинфицирующее средство на чистую салфетку.
2. Протрите мотор, включая труднодоступные места.
3. Следите за установленным временем воздействия дезинфицирующих средств.
4. Удалите с поверхности мотора дезинфицирующее средство.
5. Мотор чистый и продезинфицированный.
5. При чрезмерном загрязнении повторите очистку.

7.3 Стерилизация

- ✓ Перед стерилизацией мотор должен быть очищен от загрязнений и продезинфицирован.
- ✓ Отвинтите и снимите крышку мотора.
- ✓ При необходимости мотор вместе с крышкой можно поместить в соответствующую упаковку, пригодную для стерилизации и хранения, например, в бумажный или композитный пластиковый пакет или контейнер.
- Мотор необходимо стерилизовать в паровом стерилизаторе, используя водной насыщенный пар.

Упакованные устройства при температуре 135 °C стерилизуются в течение 10 минут, без упаковки 3 минуты. Избыточное давление 2,13 бар (30,89 psi).

УВЕДОМЛЕНИЕ! Температура, включая сушку, не должна превышать 140 °C.

Утвержденные стерилизационное оборудование: паровой стерилизатор (автоклава) класса В согласно стандарту EN 13060 (напр., DAC PREMIUM / DAC PROFESSIONAL) или класса S согласно стандарту EN 13060.

После стерилизации

- 1. Выньте мотор и крышку из стерилизатора сразу после завершения цикла стерилизации.
- ▲ ПРЕДОСТЕРЕЖЕНИЕ!** В процессе стерилизации мотор и крышка сильно нагреваются. Опасность ожогов!

- ПРЕДОСТЕРЕЖЕНИЕ!** Не пытайтесь ускорить охлаждение, погрузив мотор в холодную воду. Это может его повредить.
- 2. Храните моторы необходимо так, чтобы они не загрязнялись.
- 3. Повторную стерилизацию необходимо проводить после истечения времени хранения.

Рекомендация! По прошествии приблизительно двух лет регулярной стерилизации мотор необходимо сдать на техобслуживание в авторизованный сервисный центр DIPLOMAT DENTAL.

8 Уход

Прокладки и уплотнительные кольца необходимо менять по мере износа.

8.1 Смазка предохранительной прокладки

Периодичность

- 1 раз в неделю

Порядок выполнения

1. Нанесите тонкий слой пищевой смазки на держатель наконечника (В) и уплотнительное кольцо (А) с помощью стоматологической гладилки. Можно использовать аэрозоль для смазки Т1.
2. Разотрите смазку по кольцу.
3. Поверните кольцо для равномерного распространения смазки.

8.2 Замена светодиода

ПРЕДОСТЕРЕЖЕНИЕ! Самостоятельно заменить светодиод подсветки мотора нельзя. Обратитесь в сервисный центр. Ремонт может быть произведен только в авторизованных сервисных центрах по ремонту оборудования марки DENSIM.

8.3 Замена уплотнительных колец

ПРЕДОСТЕРЕЖЕНИЕ! При замене колец запрещается пользоваться острыми инструментами, а также растягивать новые уплотнительные кольца.

Удаление и замена уплотнительных колец

В случае утечки воды в месте соединения мотора и наконечника необходимо заменить уплотнительные кольца.

1. Удалите поврежденные прокладки.
2. Поочередно наденьте новые прокладки, начиная с первой канавки.
- ПРЕДОСТЕРЕЖЕНИЕ!** Запрещается использовать для смазки уплотнительных колец заправленную или силиконовую смазку.

8.4 Замена плоской прокладки

Если между мотором и наконечником шланга образовалась течь, необходимо заменить плоскую прокладку (1).

✓ Прокладка мотора должна быть установлена заподлицо с наконечником шланга. В случае неправильной установки могут возникнуть трудности с подсоединением шланга к мотору.

В моторах DENSIM используются плоские уплотнительные прокладки черного цвета.

1. Отсоедините мотор от подающего шланга.
2. Для удаления поврежденной прокладки (В) в нижней части мотора используйте стоматологический зонд.

3. Установите новые прокладки (А), следя за расположением трубок и контактных штырей, и прижмите их до упора.

ВАЖНО. Сторона прокладки с выступами должна быть обращена к шлангу.

9 Запасные части и расходные материалы

Используйте только запасные части, произведенные или утвержденные компанией DENSIM.

Сервисный комплект для	Рез.	Содержание
DX	DSBX101	Плоская прокладка, 2 шт.
DX BLUE	DSDX101B	Уплотнительное кольцо Ø8,5×ø0,7 шт.
DX PRO	DSDX201	Уплотнительное кольцо Ø15×ø0,6 шт.
DX PRO BLUE	DSDX201B	
DX SRG	DSBX301	Плоская прокладка, 2 шт.
		Уплотнительное кольцо Ø8×ø1 шт.
		Уплотнительное кольцо Ø17×ø0,1 шт

10 Утилизация

- По существующим данным, данное изделие не содержит веществ, вредных для окружающей среды.
- Перед утилизацией изделие необходимо продезинфицировать.
- Соблюдайте правила по утилизации, действующие в вашей местности.

26/03/2020

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INSTRUCTIONS FOR USE

Dental operating light

XENOS



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1 INTRODUCTION

This manual describes how to use XENOS dental operating light.



Before operating the light, please read the manual thoroughly.
The use of this dental light is allowed only to the dentist familiar with this instruction for use.



Do not use the medical device, if it is suspected of being damaged or malfunctioning. Contact an authorized service technician. Any serious incident that has occurred in relation to the medical device should be reported to the manufacturer and the competent authority of the Member State in which the user or patient is established.

2 PURPOSE AND USE

The Dental operating light is designed to be used in the dental practice for the illumination of the oral cavity. Two high-luminous /power/ LED diodes form the source of light.

They emit homogenous white light (3700K – 4000K).

The light spot is formed by means of 2 parabolic reflectors through back reflection.

The light spot obtained in that manner enables the dentist to work at excellent color resolution and without disturbing effects.

3 PRODUCT DESCRIPTION

3.1 General description

The light consists of a light base and a fork. These are interconnected by using of a swivel joint. The major part is the base of the light on which are situated the reflectors together with the main cooler and front cover that is transparent and protects the mirror surfaces of the reflectors. The symmetry of the spot is adjusted by adjusting screws. Fixed handles, on which detachable sterilizable coverings are put, form also an integral part of the light base.

3.2 Used Symbols

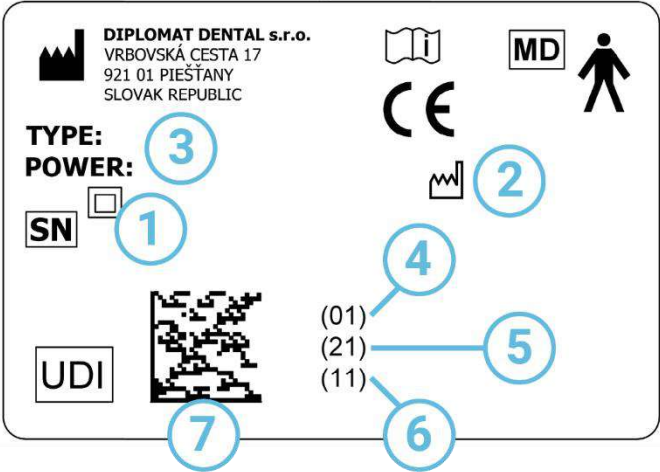
Symbol	Description	Symbol	Description
	Warning, Caution		Type B applied part
	Note	IP21	Protection against vertically falling drops of water e.g. condensation
	Additional information		Mandatory conformity marking for certain products sold within the European Economic Area
	Refer to instruction manual		Serial number, production number
	See the instruction manual		Sterilizable in a steam sterilizer (autoclave) at temperature specified
	Production date		Device is among the dangerous wastes - hand them over in the collection yard
	Manufacturer		Class II Equipment
	Medical device		Unique Device Identifier

4 TECHNICAL DATA

4.1 Technical parameters

Parameter	Value
Supply voltage	34 V DC
Maximum power input	10 W
Type of protection against electric shock	II
Optimum light stop is at the distance of	0,7 m
Nominal dimension of the light spot	max. 70 x 160 mm
Correlated color temperature	3700 – 4000 K
Illuminance level	8000 lx – 26000 lx
Weight	1 kg ± 0,1 kg
Force on the handle needed for handling	max. 30 N


4.2 Production label of the light



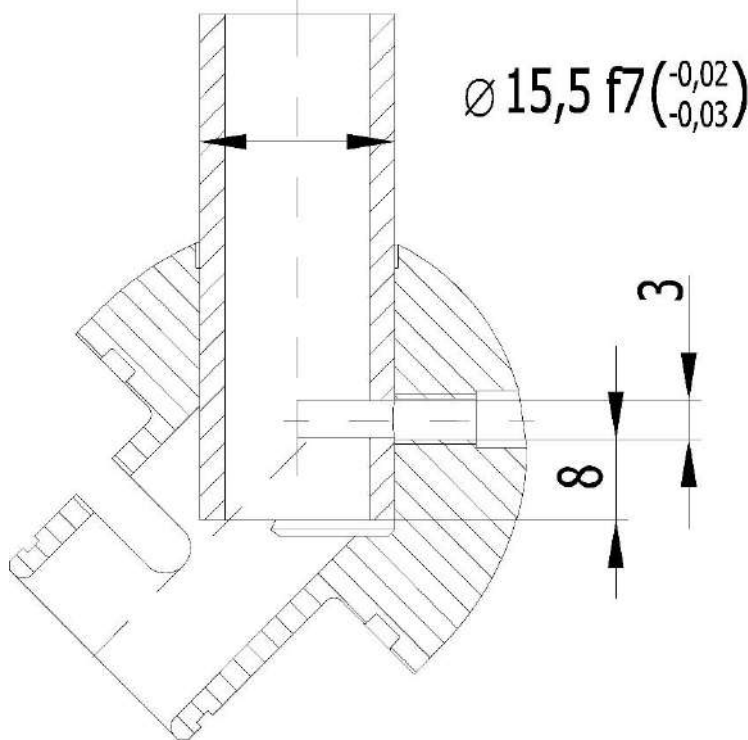
- Legend:
- 1 – Serial number
 - 2 – Date of production
 - 3 – Electric parameters
 - 4 – GTIN number
 - 5 – Serial number
 - 6 – Date of production
 - 7 – GS1 datamatrix

5 PRE-INSTALLATION REQUIREMENTS

Warnings

	Pre-installation and installation must be performed according to the applicable standards of the particular country and in accordance with the valid documentation of the manufacturer, which is owned by each authorized representative of DIPLOMAT DENTAL s.r.o.
	Do not install in premises with a potential explosion hazard!

The light is fixed to a tube with the diameter of 15,5 f7 on which is a stop for the rotation in one of the axes.



6 ASSEMBLY AND INSTALLATION

The light is delivered in assembled condition.
Installation of the light on the pantographic arm:
The installation is to be performed by a trained authorized service technician.

7 OPERATIONAL REQUIREMENTS

Parameter	Value from	Value to
Ambient temperature range	+15 °C	+40 °C
Relative humidity range	30%	75 % non-condensing humidity
Atmospheric pressure range	700 hPa	1060 hPa

8 OPERATING THE LAMP

Caution!



It is prohibited, during medical treatment, to shine with the lamp into the open eyes of a patient for more than 10 seconds!

The light is set to the desired position by means of the handle. After the dental unit has been turned on, the light is ready to work. To switch the light on, keep the hand in front of the sensor (5) at the distance up to 9 cm for 0,4 sec.

The presence of the hand in front of the sensor is indicated by going the yellow LED (4) on. After the light has gone on, remove the hand from the front of the sensor, the green LED (3) goes on, which indicates the mode of higher illuminance level.

To switch-over to the mode of lower illuminance level, keep the hand in front of the sensor for 0,2 s. The mode of lower illuminance level is indicated by flashing the green LED. The mode of lower illuminance level is suitable for work with light-sensitive material.

To return to the mode of higher illuminance level, keep the hand in front of the sensor for 0,2 s.

Button 1 and button 2 serve to set the illuminance level of the Dental operating light. When adjusting the level, the light is changed-over to the mode of higher illumination level. Button 1 serves to increase the illuminance level and button 2 to decrease the illuminance level.

To switch the light off, keep the hand in front of the sensor for 1 second.

When the light is switched off by using the sensor, the light remembers the current level of illuminance level and when it is switched on again, it is lit at the said illuminance level.



- 1. Button 1
- 2. Button 2
- 3. Green LED
- 4. Yellow LED
- 5. Sensor

9 INSTRUCTIONS FOR MAINTENANCE

Maintenance consists in cleaning and replacement of damaged parts. If the operating light does not turn smoothly on the pivot /pin/ of the pantograph, lubricate the pivot with vaseline.



It is advisable to follow the prescribed periodic inspection of light by approved service personnel at 6-month intervals

10 CLEANING

The external surface of the light is to be cleaned not with a spray but with a wet cotton cloth.

Recommended agent is INCIDIN FOAM-HENKEL-ECOLAB (Glucoprotamine, KAZ, Ethanol)

Apply it according to the Instructions for Use.

Do not use paper towels (they contain abrasive particles).



Caution!



When unsuitable cleaning agents are used, the plastic parts of the operating light may become damaged permanently.

11 DISPOSAL

In the disposal of the Dental operating light the legislation of individual country should be observed.

Part	Basic material	Recycleable material	Material to be placed in waste dumping grounds	Dangerous material
bearing parts	aluminium alloy	x		
	steel	x		
covers	PA 6,6	x		
	PP	x		
	glass	x		
	silicone		x	
electronics	LED	x		
	cables - Cu	x		
	LED fitting- Al	x		
package	paper	x		
	PUR		x	

12 SERVICING THE PRODUCT

In the event of a failure of the Dental operating light contact your dealer who will give you information about the service network.

13 GUARANTEE

The manufacturer gives guarantee on the product according to the guarantee card. The guarantee does not cover defects arisen from incorrect or improper storage, operation and handling, defects arisen during the transport, caused by external influences and defects arisen from normal wear and tear. The danger of damage on the goods passes from the seller to the buyer by the moment of passing over the goods to the first forwarding agents for transport for the buyer or by the moment of taking over the goods directly by the buyer.



Defects or failures caused by negligent operation or by not observing the instructions in the Instructions for Use, shall not be accepted as the subject of the claim under guarantee.

14 PACKAGING

- Separate packing → packed in PUR foam and a carton box.
- Packing together with the dental unit → packed in PUR foam together with the dental unit.

15 TRANSPORTATION CONDITIONS

- Packages should be transported in covered vehicles in max. 3 plies and secured to prevent movement
- Do not drop or tilt the package while loading or unloading


Transporting conditions		
Parameter	Value from	Value to
Range of temperatures	-25 °C	+50 °C
Range of humidity	5 %	95 % non-condensing humidity
Range of atmospheric air pressure	700 hPa	1060 hPa


16 STORAGE CONDITIONS

- Operating lights can be stored in dry, indoor warehouses, in max. 10 plies with no dramatic temperature changes
- Do not store together with chemicals

Storage conditions		
Parameter	Value from	Value to
Range of temperatures	-25 °C	+50 °C
Range of humidity	5 %	95 % non-condensing humidity
Range atmospheric of air pressure	700 hPa	1060 hPa

17 REQUIREMENTS ON ELECTROMAGNETIC COMPATIBILITY ACCORDING TO EN 60601-1-2

	The use of accessories other than those stated in the Instructions for Use of the dental unit may result in increased electromagnetic emissions or decrease electromagnetic immunity and invoke disfunction of the dental unit
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	Portable RF communications equipment must not be used at the distance of less than 30 cm from any part of the dental unit. Otherwise the functionality of the dental unit may be impaired
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17.1 Electromagnetic emissions

Emissions test	Compliance	Electromagnetic environment
RF emissions CISPR11	Group 1	The dental unit uses RF energy only for its function. Its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment. The dental unit is designed to be used in all environments, including residential area and it can be directly connected to the public mains network.
RF emissions CISPR11	Class B	
Harmonic emissions EN 61000-3-2	Class A	
Voltage fluctuations/flicker emissions EN 61000-3-3	Complies	

17.2 Electromagnetic immunity

The dental unit is intended for use in the electromagnetic environment meeting the requirements in Table 17.2. The customer and/or the user of the dental unit must assure that the dental unit is used in such an environment.


Table 17.2

Immunity test	EN 60601 test level	Compliance	Electromagnetic environment
Immunity to electrostatic discharge according to EN 61000-4-2	Contact discharge ± 6 kV Air discharge ± 8 kV	Contact discharge ± 6 kV Air discharge ± 8 kV	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Immunity to electrical fast transients and bursts according to EN 61000-4-4	± 2 kV for power supply lines ± 1 kV for input/output lines	± 2 kV for power supply lines ± 1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Immunity to surges according to EN 61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	Mains power quality should be that of a typical commercial or hospital environment.
Immunity to power frequency magnetic field according to EN 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should not exceed values typical for commercial or hospital environment.
Immunity to voltage dips, short interruptions and voltage variations on power supply input lines according to EN 61000-4-11	< 5% UT (> 95% dip in UT for 0,5 cycle) 40% UT (60% dip in UT for 5 cycles) 70% UT (30% dip in UT for 25 cycles) < 5% UT (> 95% dip in UT for 5 cycles)	< 5% UT (> 95% dip in UT for 0,5 cycle) 40% UT (60% dip in UT for 5 cycles) 70% UT (30% dip in UT for 25 cycles) < 5% UT (> 95% dip in UT for 5 cycles)	Mains power quality should be that of a typical commercial or hospital environment. If the user of the dental unit requires continued operation during power mains interruption, it is recommended that the dental unit be connected to a backup source.

17.3 Electromagnetic immunity

The dental unit is intended for use in the electromagnetic environment meeting the requirements in Table 17.3. The customer or the user must assure that the dental unit is used in such an environment.

Table 17.3

Immunity test	EN 60601 Test level	Compliance	Electromagnetic environment
Immunity to conducted disturbances, induced by radio-frequency fields according to EN 61000-4-6	3 Veff 150 kHz to 80 MHz	3 Veff	Portable and mobile RF communications equipment should be used no closer than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
Immunity to radiated, radio-frequency electromagnetic field according to EN 61000-4-3	3 V/m 80 MHz to 2,5 GHz	3 V/m	<p>Recommended minimum distances:</p> $d = 1,167 \sqrt{P}$ $d = 1,167 \sqrt{P}$ $d = 2,333 \sqrt{P}$ <p>150 kHz to 80 MHz 80 MHz to 800 MHz 800 MHz to 2,5 GHz</p> <p>P[W]- rated maximum output power d[m] – recommended separation distance</p> <p>Field strengths from fixed RF transmitters should be less than the compliance level in each frequency range.</p> <p>Interference may occur in the vicinity of equipment marked with the symbol .</p>



For frequency of 80 MHz the frequency range of 80 MHz to 800 MHz applies and for the frequency of 800 MHz the frequency range of 800 MHz to 2,5 GHz applies



These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people

Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones, mobile radios, amateur radio, AM and FM radio and TV broadcast and the like cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to the fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the dental unit is used exceeds the applicable RF compliance level above, its normal operation must be verified. If abnormal performance is observed, the dental unit must be relocated.

Over the frequency range of 150 KHz to 80 MHz, field strengths should be less than 3 V/m.

17.4 Recommended separation distances between portable and mobile RF communications equipment and the dental unit

The dental unit is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the dental unit can help prevent electromagnetic interference by maintaining minimum distances between portable and mobile RF communications equipment and the dental unit according to Table 17.4.



Table 17.4

Rated maximum output power of transmitter P[W]	Separation distance according to frequency of transmitter d[m]		
	150 kHz to 80 MHz $d = 1,167 \sqrt{P}$	80 MHz to 800 MHz $d = 1,167 \sqrt{P}$	800 MHz to 2,5 GHz $d = 2,333 \sqrt{P}$
0,01	0,117	0,117	0,233
0,1	0,369	0,369	0,738
1	1,167	1,167	2,333
10	3,69	3,69	7,377
100	11,67	11,67	23,33

P[W]- rated maximum output power

d[m] – recommended separation distance

For transmitters rated at a maximum output power not listed above, the distance is calculated using the equation applicable to the respective frequency.

	For frequency of 80 MHz the frequency range of 80 MHz to 800 MHz applies and for the frequency of 800 MHz the frequency range of 800 MHz to 2,5 GHz applies
	These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people

Model One.



The right choice.

Endless possibilities.

Don't even let us get started on the dozens of options you can choose from. You can customize every little detail of the dental unit to completely satisfy your needs.

Timeless design.

The basis of the design and materials used in the Model One comes from our premium Model Pro line. The design follows proven principles of ergonomics. Enjoy the essential version to comfortably perform your basic daily activities.

Reliable partner.

Model One is built with similar and simpler mechanics and electronics than our premium line Model Pro. It is made from premium materials. Its manufacturing technology has been standardized with our premium line and has already been tested and proven reliable long before product release. Each dental unit is thoroughly tested before it is sent to customers.

The right choice.

Looking for the right dental unit that brings outstanding performance and provides exceptional comfort for your patient at a competitive price? Model One might just be it.



Model One 100.



Model One 200.



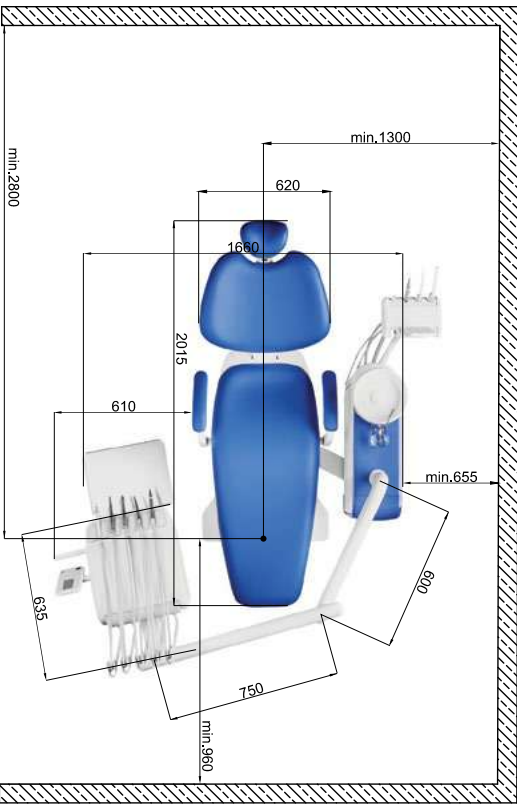
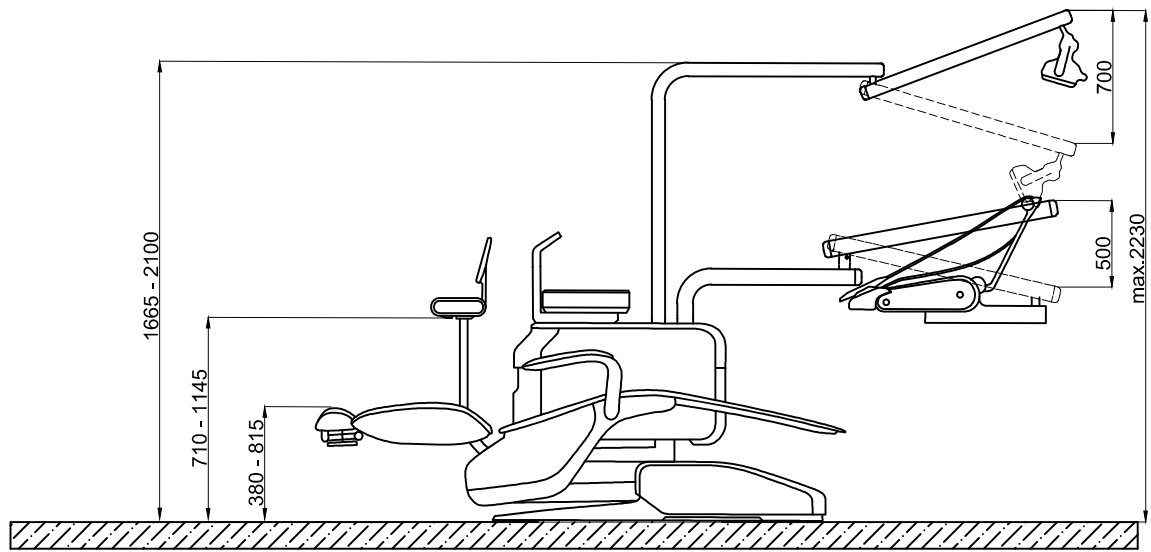
Model One 100 Ortho.



Model One 100.

Carried version

Model One 100.



The dental unit with spittoon block and patient chair with synchronized movement. They allow the patient to maintain an optimal distance with the cuspidor bowl during rinsing phases, regardless of the patient's height.

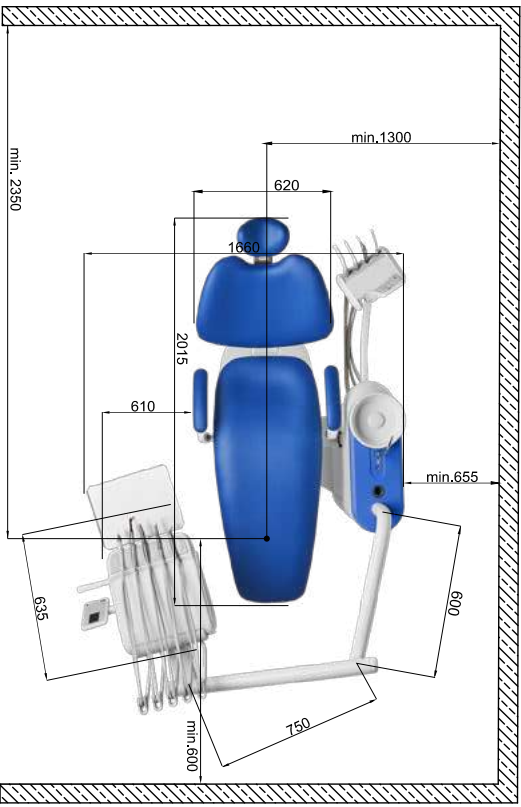
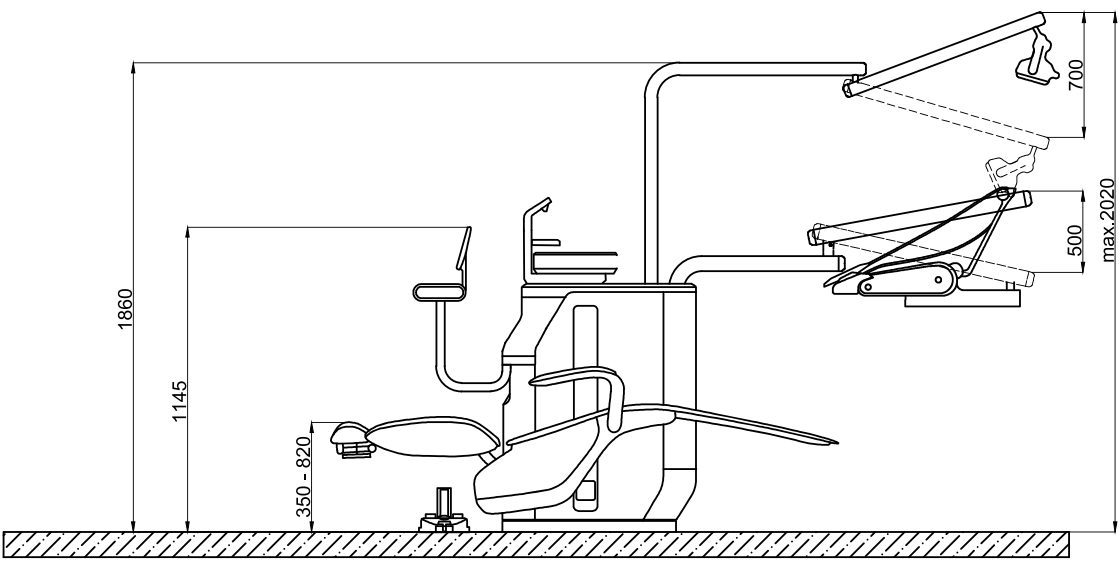
Both models are equipped with a robust chair handling mechanism capable of lifting up to 200 kg, making them an excellent choice for practices with a high volume of patients.



Model One 200.

Lift version

Model One 200.



The dental unit with a suspended patient chair and a floor-mounted water unit. It is perfect for practices with limited space due to its compact design. The chair can be lowered significantly to allow easy entry and exit for all patients (the chair can be lowered up to 350 mm from the floor).

Both models are equipped with a robust chair handling mechanism capable of lifting up to 200 kg, making them an excellent choice for practices with a high volume of patients.

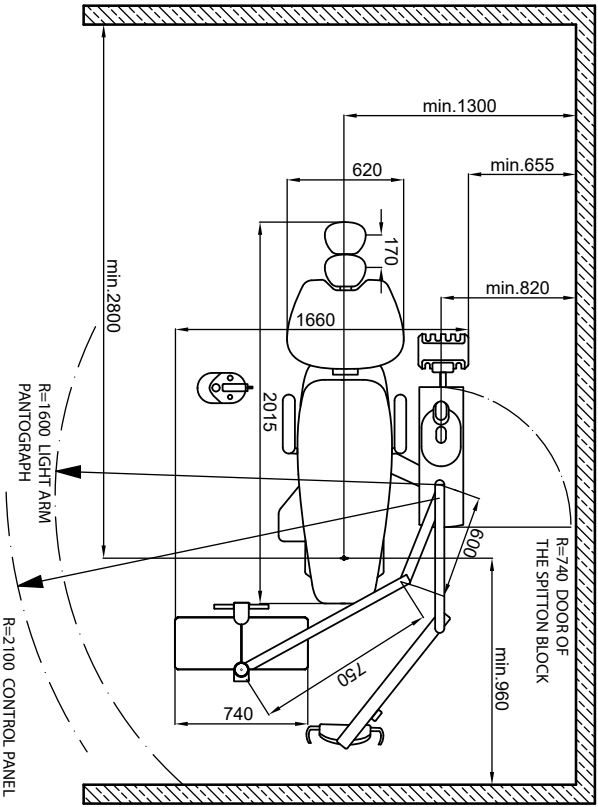
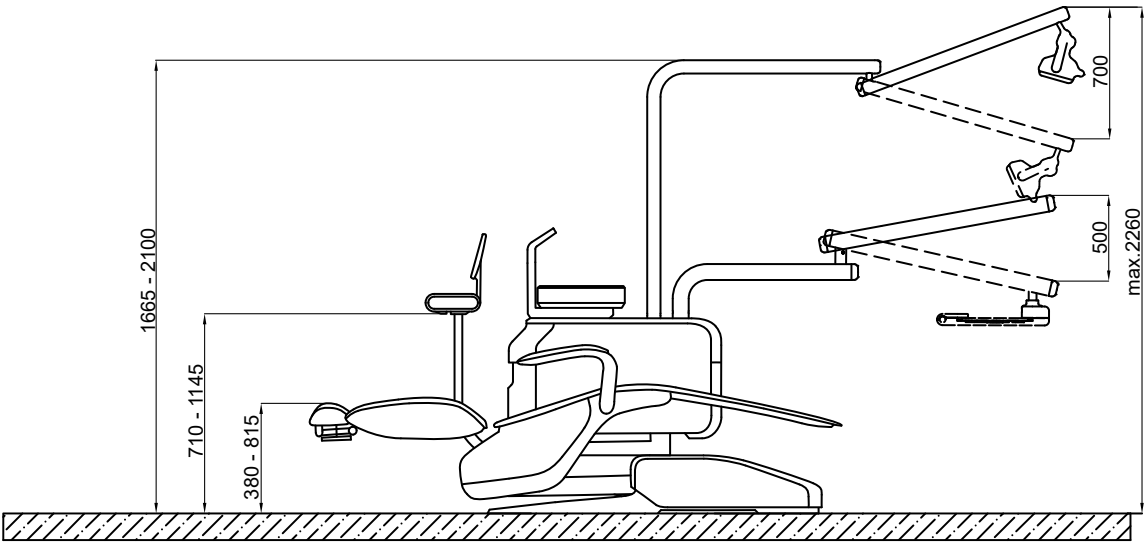


Carried version

Model One 100 Ortho.

Model One 100 Ortho.

Designed for orthodontists.
Engineered for precision.



Orthodontists deserve a solution tailored to their needs — Diplomat Dental delivers. The Model One 100 Ortho is designed exclusively for orthodontic professionals. Optimized for orthodontic workflows, it eliminates unnecessary features and focuses on what truly matters: efficiency, comfort, and seamless patient care.

- **A dental chair made exclusively for orthodontic professionals.**
- **Optimized for your workflow — no unnecessary features.**
- **Efficiency, comfort, and seamless patient care.**
- **Timeless design.**

Endless possibilities.

Close your eyes and imagine the dream dental unit. Now open them, and make it happen with Model One. With almost endless customization options, the way your Model One looks and works is just up to you.

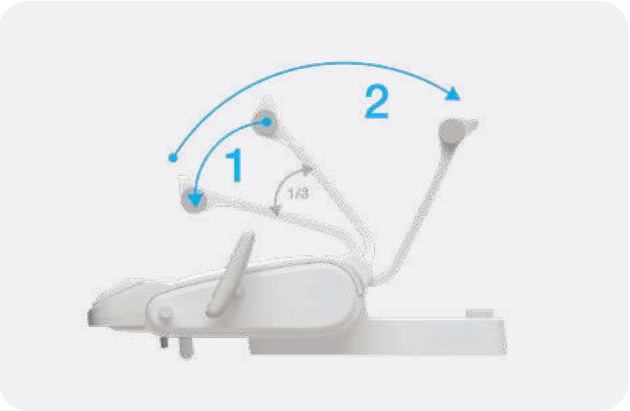
Up or down?

Enhance your dentist's element with an upper or lower hose delivery system.



Hold the whip hand.

The dentist's element with instrument hoses routed in the upper hoses configuration may be equipped with a whip lock. An instrument whip is routed to the instrument placed in a designated slot. The whip is pulled towards the stop to unlock. The whip then returns to its resting position.



Put your skills on display.

The control panel on the dentist’s element comes in two variants. The button layout of both options include controls for four custom chair positions and the getting-on position. You can also pre-program two unique dentist profiles for both of the variants.



Control panel One.

The standard control panel comes with a 5-digit display unit which provides you with information regarding the RPM of the currently used micromotor. This version of the control panel includes buttons for the chair, light, cup and cuspidor control. It also rocks a fancy negatoscope!

1 Buttons for light,cup, cuspidor

2 Buttons for chair control

3 Buttons for instrument settings*



Control panel One Plus.

The advanced control panel comes with a full-color display and extra buttons to control the endodontics fuctions of your instruments. This choice also supports automatic hygiene.

Intuitive instrument control.

The instruments on the dentist’s element are activated once removed from the individual holsters.

One button to rule them all.

The instrument settings can be customized with four different presets.



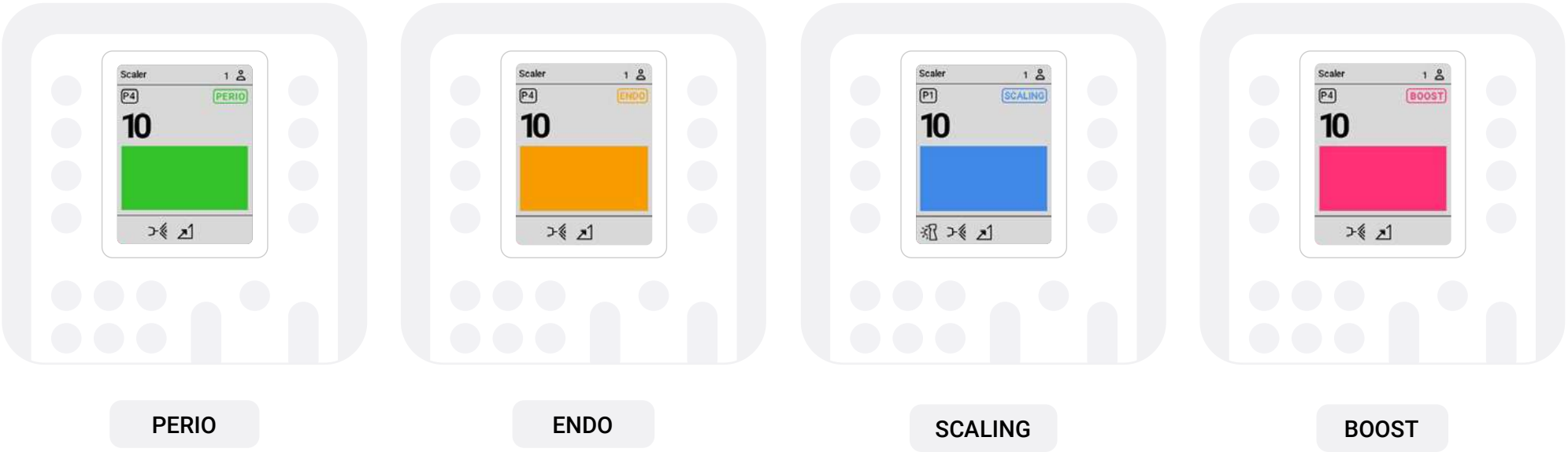
Multi-colored LED indicators on Control panel One.

To support a dentist's workflow while using Control Panel One we use intuitive multi-colored LED indicators to recognize switching functionalities.

	LIGHT OFF	WHITE LIGHT	BLUE LIGHT	GREEN LIGHT
	Cooling down	Spray cooling	Water cooling	Air cooling

Pick your scaler.

The selection of scalers compatible with Model One's Control panel One Plus includes:



Scaler	PERIO	ENDO	SCALING & GENERAL	BOOST
Satelec SP Xinetiс	•	•	•	
Satelec NEWTRON	•	•	•	•
Satelec NEWTRON LED	•	•	•	•
NSK VA170	•	•	•	
NSK VA170 LED	•	•	•	
WOODPECKER		•	•	

EMS The EMS scalers do not have specific functions. Their intensity range is from 0-10, which covers all modes.



Endodontic functions.

Control Panel One Plus with micromotor DX Pro or DX Pro Blue enables you to use additional endodontic functions. This includes auto-reverse and auto-forward features.

It's possible to adjust the speed range from 100 to 40,000 RPM and the torque is adjustable to 3.5Ncm.

And yet it moves!

The standard version of the Model One’s cuspidor is fixed to the cuspidor. However if you want to provide your patients with additional comfort, you can choose the rotary option.



What light will you turn on?

You can choose from the XENOS or the MAIA dental lamps. The Xenos lamp reaches up to 26.000 Lux. The MAIA lamp up to 35.000 Lux and CRI>95. Both lamps have hands-free operation functions thanks to the no-touch sensor.



SIRIUS



Available in options

SIRIUS Essential

- x4 LED
- 35.000 Lux
- 5500 K LED temperature
- No composite mode
- Sharp illumination area
- Smooth adjustment of illumination intensity across the full min/max range

SIRIUS Plus

- x8 LED
- 35.000 Lux
- LED temperature 5500 K
- Composite mode ("Yellow" – light with filtered blue light wavelength 430–480 nm)
- Sharp illumination area
- Smooth adjustment of illumination intensity across the full min/max range

SIRIUS Ultra

- x8 LED
- 50.000 Lux
- x4 different LED temperatures:
 - Warmer white light – 4000 K
 - Warm white light – 4400 K
 - Neutral white light – 4800 K
 - Cold white light – 5500 K
- Composite mode ("Yellow" – light with filtered blue light wavelength 430–480 nm)
- Sharp illumination area
- Smooth adjustment of illumination intensity across the full min/max range (at LED temperature of 5500 K)
- Four steps adjustment of illumination intensity across the full min/max range (at LED temperature 4000–4800 K)

Pedal to the metal.

Even though you might not feel the same adrenaline as in a racing car, you get ergonomic and practical benefits from using foot controllers. You can select from three options compatible with Model One.



MARQUARDT
Stable and skid-proof thermoplastic housing with rubber feet.



NOK
Vertically operated multifunction foot pedal to control instruments, chair and water unit.



SWING
Horizontally operated multifunction foot pedal for controlling instruments, chair, and water unit. With Improved ergonomics and easy control of the instruments' spray with the lever.

Ready for an extra pair of hands.

The assistant’s element has six instrument holders. Two versions are available: BASIC and ADVANCED. The BASIC assistant element allows the assistant to control cuspidor rinsing and cup refilling. With the ADVANCED assistant's element, you will also be able to control the chair’s movements, including the Trendelenburg position.

Basic



Advanced



Posissible configurations

- Pantographic Assistant Arm (as Model Pro)
- Control Panel One
- Suction hoses
- Syringes
- Turbine (max 1)
- Micromotor (max 1)
- Scaler
- Polymerization light
- Intraoral Camera



Model One 100 Ortho.



Fast, faster, Model One.

Model One has simple manual hygiene in the standard version, but you can upgrade to fully automatic hygiene. Model One maintenance is fast and easy, regardless of your choice.

Even manual disinfection is an easy chore.

If you choose the standard version of Model One, which is not equipped with an automatic water channel and suction hose hygiene system, regular manual hygiene is still possible. All of the systems are very easily maintained and come with simple and clear recommendations.

Automatic disinfection of instrument water channels.

The recommended disinfectants are Alpron, Sanosil S003, or Dentosept P in a 1% concentration with distilled water. These products in a 1% concentration are completely inert with respect to patients.



Hygiene holder.



Instrument hoses in hygiene holder.



Automatic hygiene of big and small suction hoses.

Intensive disinfection of instrument water channels.

The recommended disinfectants are Alpron, Sanosil S003, or Dentosept P in a 100% concentration. The cooling system channels are kept clean and there is no need to use other means of disinfection.

Automatic hygiene has 4 settings options:

- | | |
|--|---------------------------------------|
| 1.
Beginning of a workday hygiene. | 2.
After treatment hygiene. |
| 3.
End of a workday hygiene. | 4.
Intensive hygiene. |

Timeless design.

We shaped the award-winning design of our Model Pro Series and used it to create the Model One fundamental design, to support the dentist in their essential needs. The same materials, body parts, and ergonomically oriented design philosophy.

Business class tickets, please.

Next time your patients visit you, let them know they may as well imagine they're sitting in a limo. Why? We've teamed up with ergonomics experts from the dental industry to design this absolute masterpiece of a dental chair to reduce your patient's physical strain and make them as comfy as possible.



Simple is an understatement.

The control panels use a clear and simple button layout, graphics, and a high-quality surface finish. We've kept it simple, so you can completely focus on your job without any distractions or mistakes.



Hard to get your eyes off of it.

Clean geometry, well-designed user interface, compact size, and great ergonomics. All of these combine to make Model One not just a sight to see, but, also a great product to use.



Pleasant to the touch.

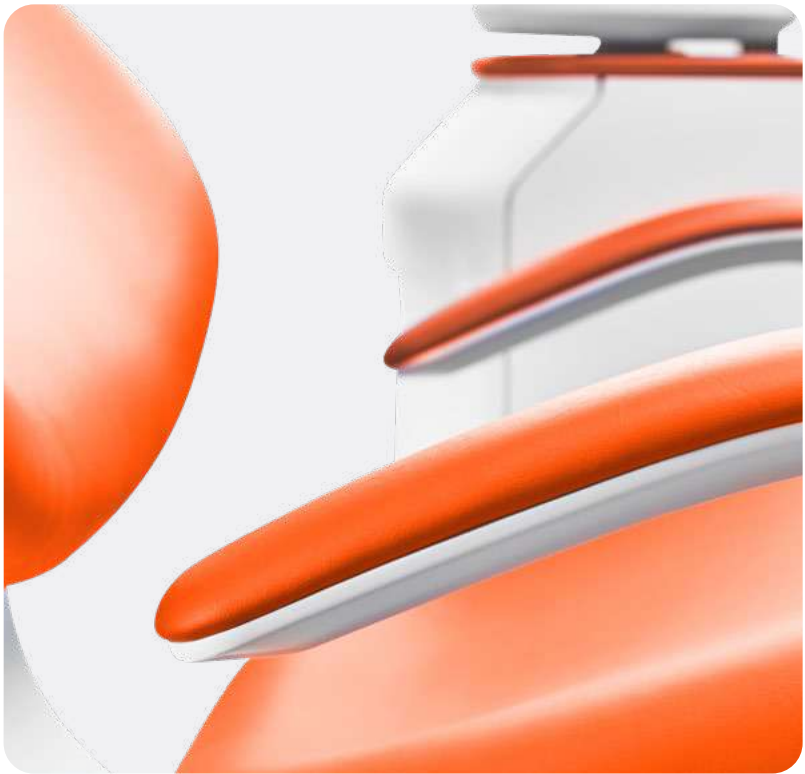
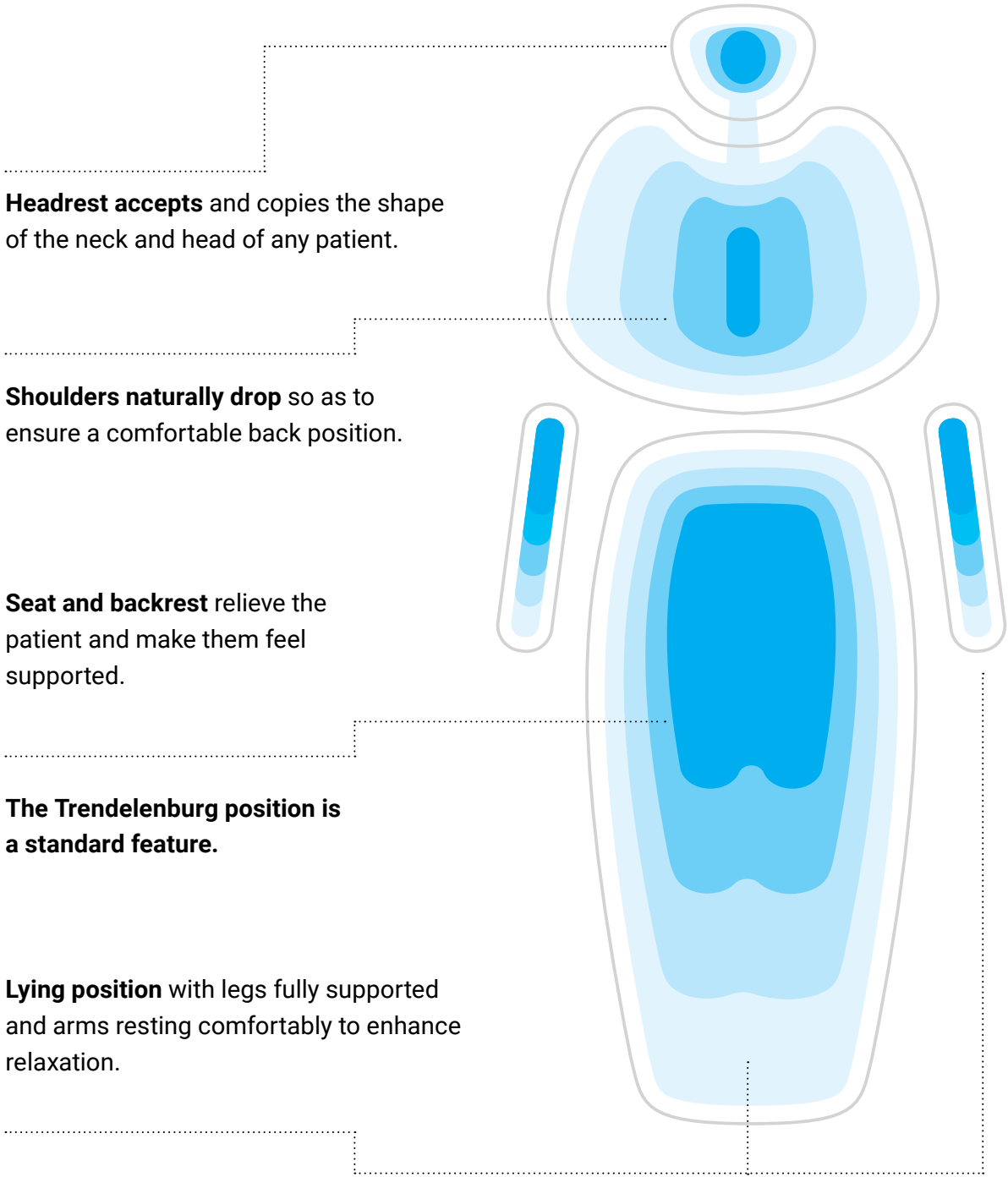
Most of the materials used, such as UV-resistant and chemically resistant ASA plastic or galvanized semi-matte metals, can match even the most premium products on the market.



Love at first seat.

The base of Model One’s design, ergonomics and materials used come from our premium model line Model Pro.

- a) The backrest is wide enough to ensure patients' upper body side movement.
- b) For the most demanding dentist, a 3D headrest is essential to allow a lateral flexion position of the patient head.

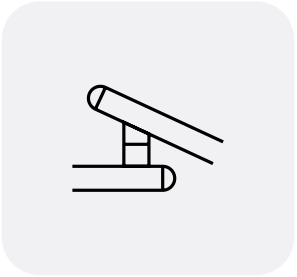


Model One takes care of you.

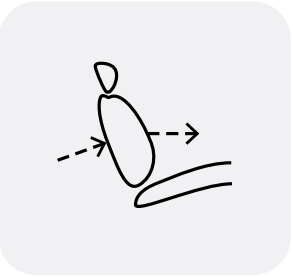
It’s not just your patients but you that deserve the best. Musculoskeletal problems appear to be the leading cause of dental practitioners’ premature retirement from practice.

Great ergonomics are essential for your long-term health. Model One meets all the conditions for ergonomic work, from palatine treatment to operational positions.

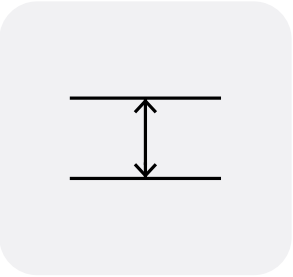
Some of the ergonomic highlights:



The dental unit’s arms are ergonomically adapted for your daily work.



The backrest allows the sideways movement of the patient’s upper body.



Minimum backrest thickness to allow dentists to get close to the patient’s head.



The dentist's and assistant's elements can get incredibly close for a two-handed treatment at the 12 o'clock position.



The assistant's element can free the space for four-handed treatment.

Feeling frisky?

Whatever you feel like, we’re giving you the freedom to express yourself. With the choice of dozens of color and upholstery options, it’s just about your preference. Take a look at the most popular choices. You’ll find all available options in our [upholstery catalogue](#).

Standard Collection.

By picking the Standard version, you will be able to enjoy the typical leather look. This soft-to-touch and flexible material is highly durable, resistant to scratches, and well-protected from UV radiation.



Special Collection.

By picking the Special version, you will be able to enjoy the typical leather look. This soft-to-touch and flexible material is highly durable, resistant to scratches, and well-protected from UV radiation. Not only that, you will have unique colors to choose from!



Special Plus Collection.

Light material with high flexibility and a perfect finish. By being phthalate-free, the Swiss-made Special Plus version brings extra safety for the user while being easily cleanable and meeting all fire safety standards.

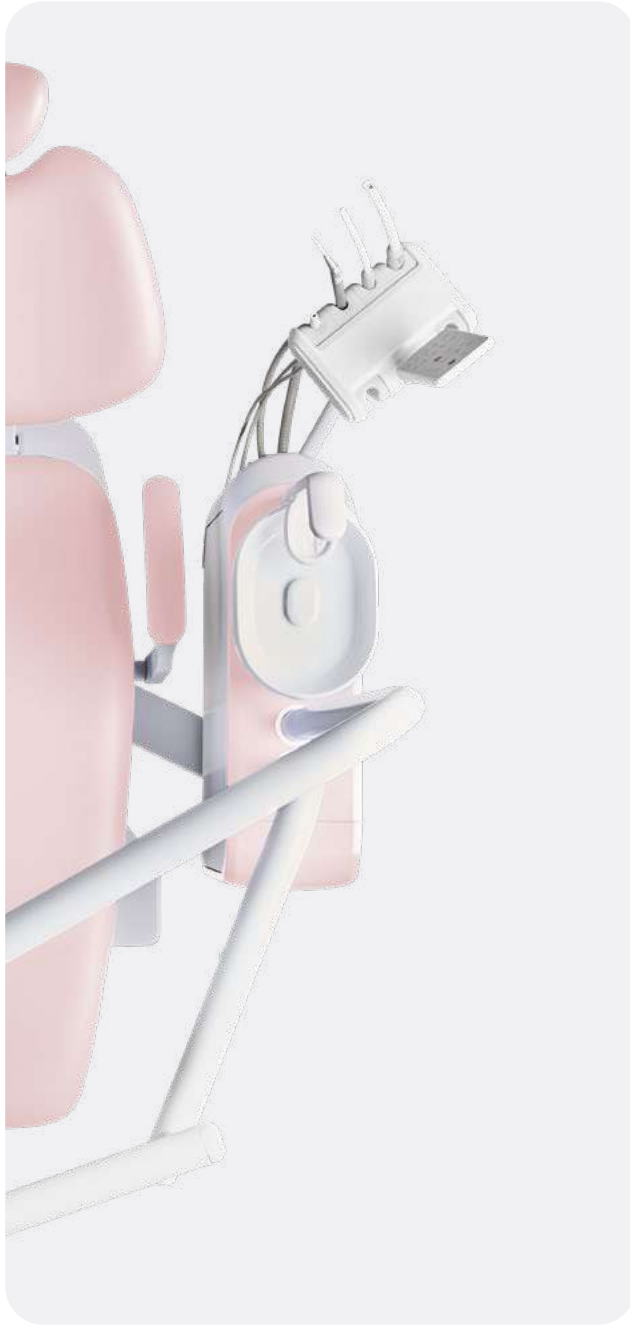


Premium Collection.

With its natural grainy look, the Ultra-leather Premium version delivers a quintessentially classic style that elevates the experience of leather. It is soft to the touch with reinforced rayon backing and industry-leading cutting-edge durability. Premium stitched upholstery is available to order only with active foam to ensure maximum patient comfort.



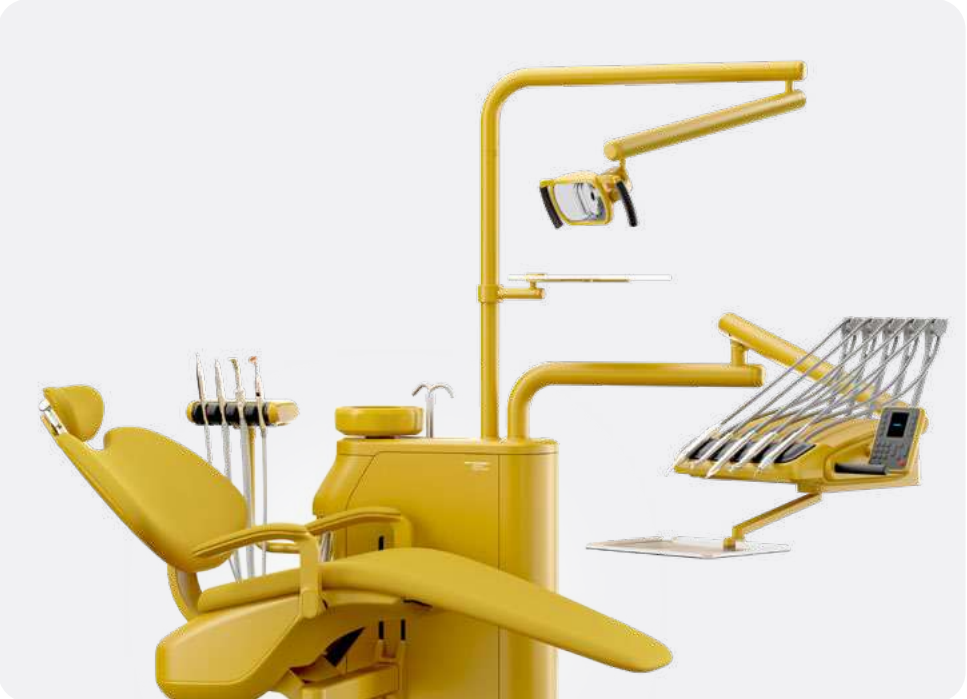
Choose custom color for upholstery and plastic cover.



Express your style.



Choose from new color options and match your upholstery with other parts of the dental unit.



The full painted units photos presented are demonstrative. Some of the elements of the unit, such as foils (control panel, assistant element), instrument holders, whip arms, rubber covers, must remain in original colors, cannot be painted. Ask your dealer for details.

Reliable partner.

Ease of use and essential functions are the main philosophy behind Model One. Even on your first day with Model One, it will feel like you've worked with it for ages.

In your natural habitat.

Model One provides comfortable access to all your tools, instruments and control panels at all times.

Comfortable for all shapes and sizes.

The range of the chair lift is extremely large – from 35 cm to 82 cm. Thanks to this, your child patients will easily be able to hop onto the chair. It also provides a comfortable workspace for dentists of smaller or even larger stature.

Installation? Eaaaasyyyyy.

The installation of Model One is very easy and swift, and you can start working almost as soon as it's delivered to you.



Diplomat Dental by Bien-Air — Swiss precision at your fingertips.

Your handpiece is more than just a tool — it's an extension of your expertise.

That's why **Diplomat Dental handpieces by Bien-Air** are designed to deliver unmatched precision, durability, and comfort for every procedure.



Uncompromising quality.

Swiss-made excellence ensures smooth operation, perfect balance, and long-lasting performance.

Exceptional reliability.

Built to withstand intensive daily use while maintaining consistent power and minimal vibrations.

Peace of mind guaranteed.

Enjoy a 2-year warranty, ensuring long-term reliability and confidence in every procedure.

Global technical support.

Wherever you are, expert service is always within reach.

Seamless integration.

Elevate your Diplomat Dental unit with high-end Swiss instruments for a superior clinical experience.



Pro line.

- Diplomat CA NOVA 1:5L
- Diplomat CA NOVA 1:1L
- Diplomat TORNADO LED/LK

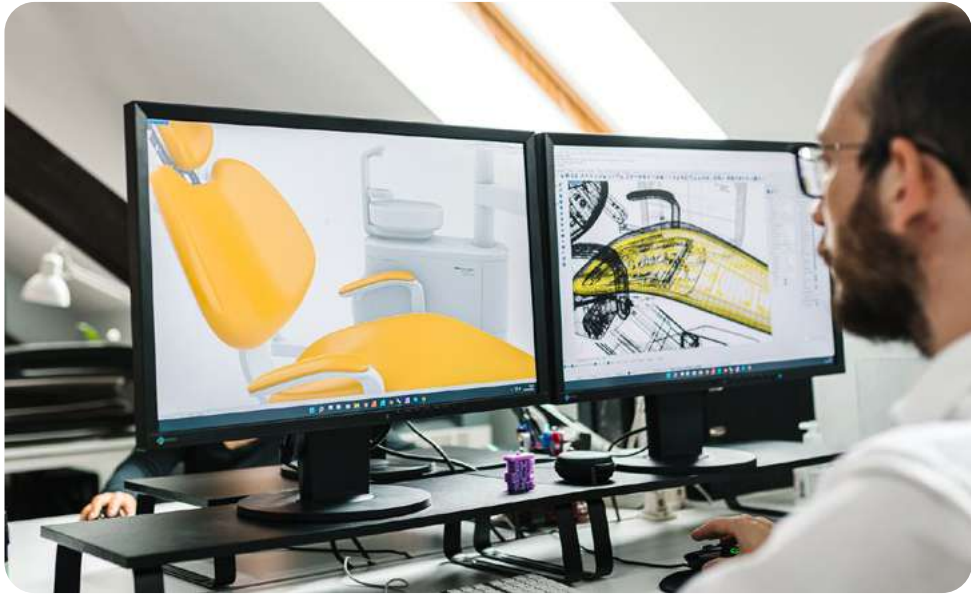
Classic line.

- Diplomat CA 1:5L
- Diplomat CA 1:1L
- Diplomat BORA 2 LED/LK
- CA 20:1L Micro series
- PM 1:1 Micro series

Precision, durability, and performance — because great dentistry starts with great instruments.

Focus on reliability & high quality.

All our products are carefully designed and engineered to meet the specific needs of our customers while always attaining our high-quality standards.



90% of our components are manufactured in-house. Each component of every dental unit is thoroughly checked more than 15 times during the manufacturing process as we process it from the input material to the final element of the dental unit.

One of our biggest strengths lies in our R&D team and our numerous cooperations with experienced partners and industry experts.

Each newly developed product is tested internally for four months



to a year in our internal test room. After this process, our beta tester dentists work with the prototypes for up to one year while we use their feedback to fine-tune the product.



Diplomat Dental products are highly customizable. We can accommodate specific requirements and needs of our customers.



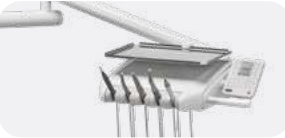
"Our product philosophy is into focus on open platforms, modular and intelligent solutions that improve the workflow of your dental office – making advanced technologies and smart tools easy to use and accessible to every dentist."

Tomas Nerad,
CEO – Diplomat Dental

Get the full experience with our accessories.

Take a look at our full range of accessories that are compatible with Model One.

Dentist element



Standard
Traditional style
5 instrument option



Standard
Continental style,
5 instrument option

Control pannel



Standard
One



Optional
One Plus

Assistant's element



Standard
Saliva ejector with
adapter on water unit



Optional
Basic



Optional
Advanced

Cuspidor



Standard
Fixed cuspidor



Optional
Rotating cuspidor (manual rotation only)

Headrest



Standard
2D



Optional
3D

Monitor



Optional
Neovo monitor 22" DR22 white Widescreen
Neovo monitor 22" RX22G black, FULL HD Widescreen

Lamp



Standard
XENOS



Optional
MAIA



Optional
SIRIUS

Footcontroler



Standard
Marquardt



Optional
Nok



Optional
Swing

Tray



Optional
Aluminum tray
sized 380x285 mm



Optional
for Model One 100 Ortho
Single aluminum
sized 500x290 mm



See more option at page 40

Optional
for Model One 100 Ortho
Double aluminum tray
sized 2x 370x290 mm

Upholstery types



Standard (seamless)
Upholstery



Stitched
Upholstery



Stitched (Premium)
Upholstery with Active foam

Water unit



Standard
Big and Small suction
hoses with manual
regulation (one filter)



Optional
Big and Small suction
hoses with selection
valve (two filters)

Stool



Optional
With a backrest for the
dentist, With a backrest for
the assistant, Horse-seat
for a microscope

Accessories



Optional
Pillow
for children



Optional
Protection
cushions

Paint



Optional
Complete paint in
semi-matt white

Choose your own features.

Configure Model One to become your dream dental unit.

Model One 100/Model One 100 Ortho	
Plate for non-grounding/floating floor/exhibition	<input type="radio"/>
Synchronized movement of backrest and patient chair	<input type="radio"/>
Headrest 2D	<input type="radio"/>
Headrest 3D	<input type="radio"/>
Left armrest	<input type="radio"/>
Right armrest	<input type="radio"/>
Pillow for children	<input type="radio"/>
Protection cushion	<input type="radio"/>

Dentist's element	
Continental style with 5 instruments	<input type="radio"/>
Traditional style with 5 instruments	<input type="radio"/>

Tray	
Aluminum tray 380x285 mm	<input type="radio"/>
Optional for Traditional Style (TS) – Left 380x285 mm	<input type="radio"/>
Optional for Traditional Style (TS) – Double 2x 380x285 mm	<input type="radio"/>
Optional for Model One 100 Ortho – Single aluminum 500x290 mm	<input type="radio"/>
Optional for Model One 100 Ortho – Double aluminum 2x 370x290 mm	<input type="radio"/>

Cuspidor	
Fixed cuspidor	<input type="radio"/>
Rotating cuspidor (manual rotation only)	<input type="radio"/>

Color version of dental units	
Color set painting on water unit – possible to choose from all colors	<input type="radio"/>
Complete unit painted in semi matt	<input type="radio"/>
Complete unit painted in customized color	<input type="radio"/>

Model One 200	
Plate for non-grounding/floating floor/exhibition	<input type="radio"/>
Synchronized movement of backrest and patient chair	<input type="radio"/>
Headrest 2D	<input type="radio"/>
Headrest 3D	<input type="radio"/>
Left armrest	<input type="radio"/>
Right armrest	<input type="radio"/>
Pillow for children	<input type="radio"/>
Protection cushion	<input type="radio"/>

Control Panel	
Control Panel "One" with negatoscope	<input type="radio"/>
Control Panel "One Plus" <i>*compulsory to run the Endo function and automatic sanitization process</i>	<input type="radio"/>

Upholstery	
Standard (seamless) upholstery	<input type="radio"/>
Stitched upholstery	<input type="radio"/>
Premium Stitched upholstery with ACTIVE FOAM	<input type="radio"/>
<i>The colors of the leather can be selected in the upholstery catalogue.</i>	

Dentist's element additional options	
Separate water regulators for each instrument	<input type="radio"/>
Whip lock only for CS (upper hose) delivery system	<input type="radio"/>

Instruments for dentist's elements	
SYRINGE	
Minimate 3F syringe	<input type="radio"/>
Minilight 3F syringe	<input type="radio"/>
Minilight 6F syringe	<input type="radio"/>
Minilight 6F syringe straight with light and module	<input type="radio"/>
Miniassistant 3F syringe – INOX (metal), round-shaped	<input type="radio"/>
DCI syringe – INOX (metal)	<input type="radio"/>

MICROMOTOR	
SET DENSIM DX motor with accessories	<input type="radio"/>
SET DENSIM DX PRO motor with accessories	<input type="radio"/>
SET DENSIM DX BLUE motor with accessories	<input type="radio"/>
SET DENSIM DX PRO BLUE motor with accessories, endo functions auto reverse, auto forward	<input type="radio"/>

TURBINE HOSE	
Midwest fibre-optic hose for turbine	<input type="radio"/>
Turbine output regulation (for one or two turbines)	<input type="radio"/>

SCALER	
LM-ProPower UltraLED scaler with light with module (4 tips)	<input type="radio"/>
EMS MiniPiezon FS-433 scaler without light (3 tips)	<input type="radio"/>
EMS MiniPiezon FS-432 LED scaler with light (3 tips)	<input type="radio"/>
EMS MiniPiezon FS-367 LED scaler with light (3 tips)	<input type="radio"/>
Satelec SP Xinetic scaler without light (1 tip)	<input type="radio"/>
Satelec NEWTRON scaler without light (3 tips)	<input type="radio"/>
Satelec NEWTRON LED scaler with light (3 tips)	<input type="radio"/>
NSK VA170 scaler without light with module (3 tips)	<input type="radio"/>
NSK VA170 LED -Lux scaler with light with module (3 tips)	<input type="radio"/>
Woodpecker UDS-N3 LED scaler (6 tips)	<input type="radio"/>

CURING LIGHT	
Mectron Starlight	<input type="radio"/>
Monitex curing light	<input type="radio"/>

Assistant element	
BASIC assistant's element	<input type="radio"/>
ADVANCED assistant's element	<input type="radio"/>
Saliva ejector with adapter on water unit	<input type="radio"/>
Assistant element arm	
Short arm (ideal for 4-hands treatments)	<input type="radio"/>
Long arm (ideal for 2-hands treatments)	<input type="radio"/>
Pantographic Assistant Arm	<input type="radio"/>
Assistant's element instruments	
Minimate 3F syringe	<input type="radio"/>
Minilight 3F syringe	<input type="radio"/>
Mectron Starlight	<input type="radio"/>
Monitex curing light	<input type="radio"/>
Rollers for big and small suction hoses (2 pcs.)	<input type="radio"/>
Diplomat intraoral USB camera with software for connection with PC and accessories	<input type="radio"/>
Additional saliva ejector (not possible to combine with "only saliva ejector" option and with any amalgam separator)	<input type="radio"/>
Foot Control	
SWING foot control (recommended by Diplomat Dental)	<input type="radio"/>
NOK foot control	<input type="radio"/>
Marquart foot control	<input type="radio"/>
Dental lights	
Xenos (up to 26.000 Lux)	<input type="radio"/>
Faro MAIA LED lamp with sensor (up to 40.000 Lux)	<input type="radio"/>
Sirius Essential (35.000 Lux)	<input type="radio"/>
Sirius Plus (35.000 Lux)	<input type="radio"/>
Sirius Ultra (50.000 Lux)	<input type="radio"/>
Light pole	
Light pole for operating light only	<input type="radio"/>
Light pole for operating light and suitable for extra tray	<input type="radio"/>
Light pole with operating light, suitable for tray plus monitor adapter	<input type="radio"/>

Assistant's elements instrument for Model One 100 Ortho	
SUCTION HOSES	
Big (HVE) and Small suction with manual regulation	<input type="radio"/>
Big (HVE) and Small suction with selection valve	<input type="radio"/>
Saliva Ejector	<input type="radio"/>
SYRINGES	
Miniassistant 3F	<input type="radio"/>
DCI	<input type="radio"/>
Luzzani Minimate	<input type="radio"/>
Luzzani Minilight	<input type="radio"/>
TURBINE (MAX 1)	
Midwest fibre-optic hose for turbine	<input type="radio"/>
Turbine output regulation (for one or two turbines)	<input type="radio"/>
MICROMOTOR (MAX 1)	
Densim DX	<input type="radio"/>
Densim DX Blue	<input type="radio"/>
SCALER	
Woodpecker	<input type="radio"/>
POLYMERIZATION LIGHT	
Mectron Starlight	<input type="radio"/>
Monitex curing light	<input type="radio"/>
INTRAORAL CAMERA	<input type="radio"/>
Monitor	
Neovo monitor 22" DR22 white	<input type="radio"/>
Neovo monitor 22" RX22G black	<input type="radio"/>

Disinfection systems	
Semi-automatic disinfection of instruments with Alpron (0,6l additional bottle, 1L Alpron, instruments adapter to be fitted into spittoon bowl)	<input type="radio"/>
Automatic and continuous disinfection of cup filler and instruments hoses (includes extra bottle for disinfection agent)	<input type="radio"/>
Dry suction system	
Venturi system, ejector accessories (Dürr control of suction aspirators - manual changeover of aspirators + Dürr filter)	<input type="radio"/>
Cattani miniseparator	<input type="radio"/>
Dürr CS1 separator	<input type="radio"/>
METASYS ECO-L1, seprator water-air	<input type="radio"/>
METASYS1 amalgam separator (including sample disinfection set + applicator + replacement container) separation rate 98,6%	<input type="radio"/>
Dürr CAS-1 amalgam separator (including replacement container) separation rate 97,9%	<input type="radio"/>

Wet suction system	
Standard wet suction	<input type="radio"/>
Extra charge for selection valve (for dental offices with two or more dental chairs)	<input type="radio"/>
Extra charge for selection valve & Dürr Cuspidor valve for wet suction (drain and suction air go to suction machine)	<input type="radio"/>

Options for central water supply	
Central water supply (including 2.5 bar water regulation) + depressurization bottle system	<input type="radio"/>
Funnel for comfort bottle access for central water supply	<input type="radio"/>

Options without central water supply	
2.5 bar water regulation (needed when water inlet pressure is too high)	<input type="radio"/>
Depressurization bottle system	<input type="radio"/>
Funnel for comfort bottle access for unit without central water supply	<input type="radio"/>

Water unit options	
Distilled water bottle	<input checked="" type="radio"/>
Front panel for external media connections (air, water, power) including 2.5 bar water regulation	<input type="radio"/>

Stools	
D10L with back-rest for the dentist	<input type="radio"/>
D10L with back-rest for sister	<input type="radio"/>
D10L horse-seat	<input type="radio"/>
D10L for microscope	<input type="radio"/>

Suction hose regulation	
Only BIG (HVE) Suction with manual regulation	<input type="radio"/>
Only Saliva Ejector	<input type="radio"/>
BIG (HVE) and SMALL Suction with manual regulation - one wet suction filter	<input type="radio"/>
BIG (HVE) and SMALL Suction with Automatic suction control & Multi-station Valve (two suction filters)	<input type="radio"/>

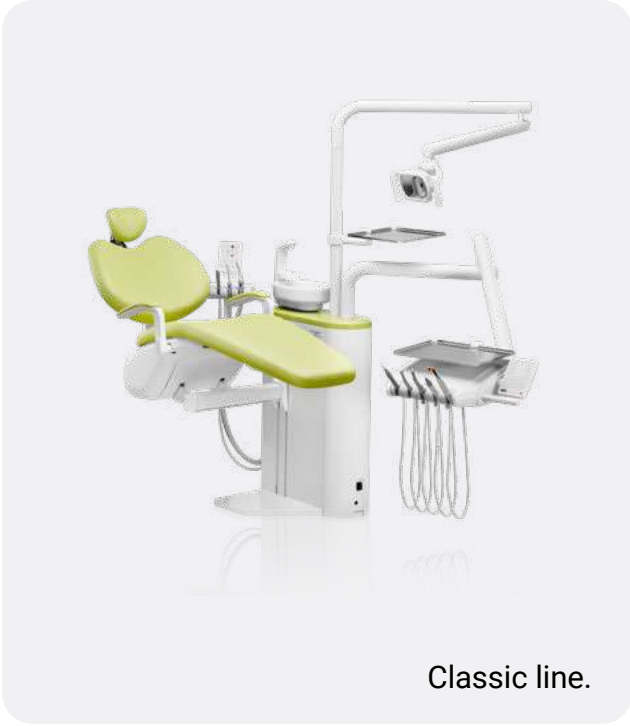
Warranty	
Standard two-year warranty period	<input checked="" type="radio"/>
Extra one-year warranty period	<input type="radio"/>
Extra two-year warranty	<input type="radio"/>
Extra three-year warranty	<input type="radio"/>

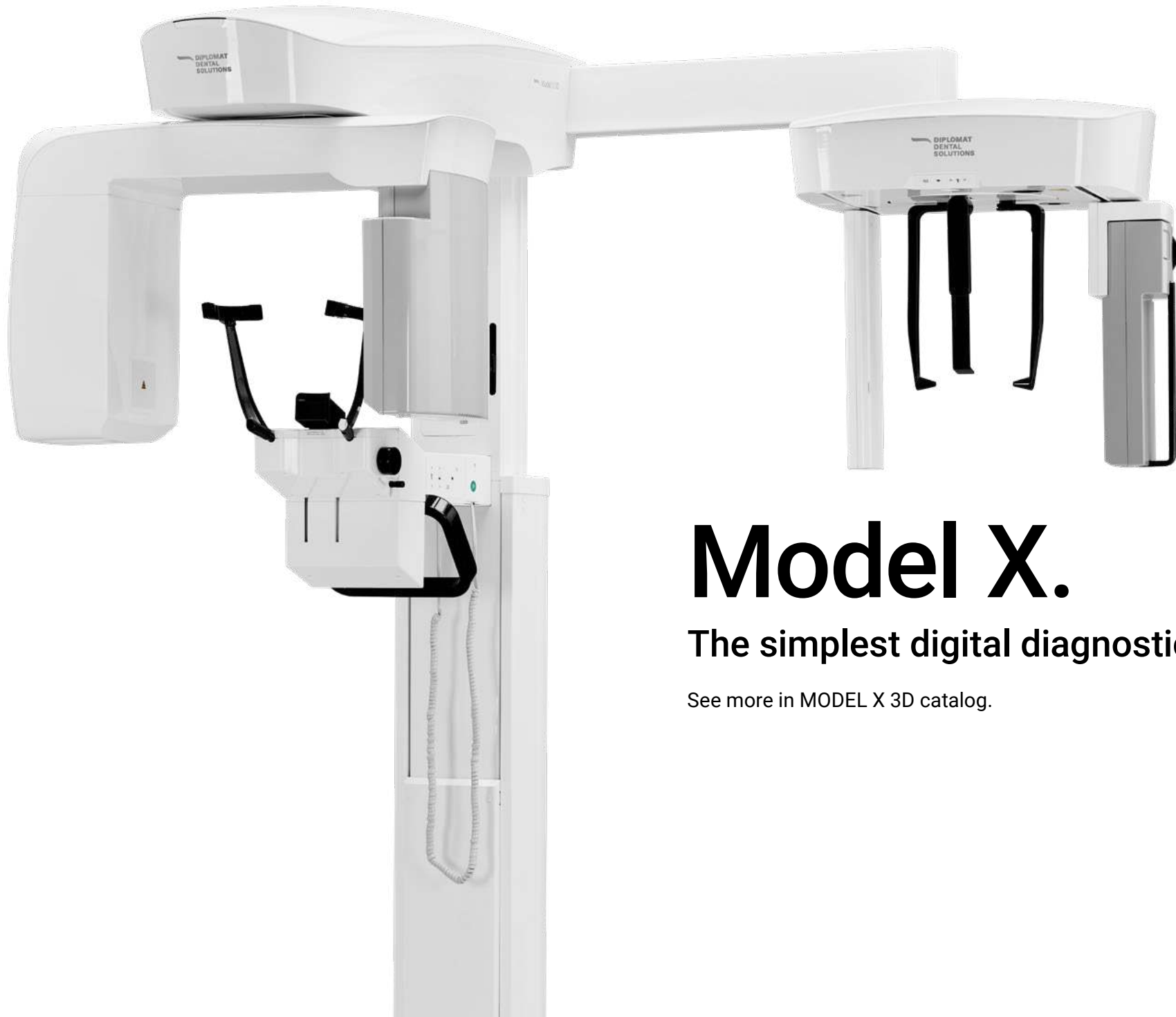
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