

Comfortek®

Dental Unit

Instruction For Use



Beyes®
The Next Standard

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Model	Comfortek Smart Comfortek Expert Comfortek Master
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PRODUCT INTRODUCTION

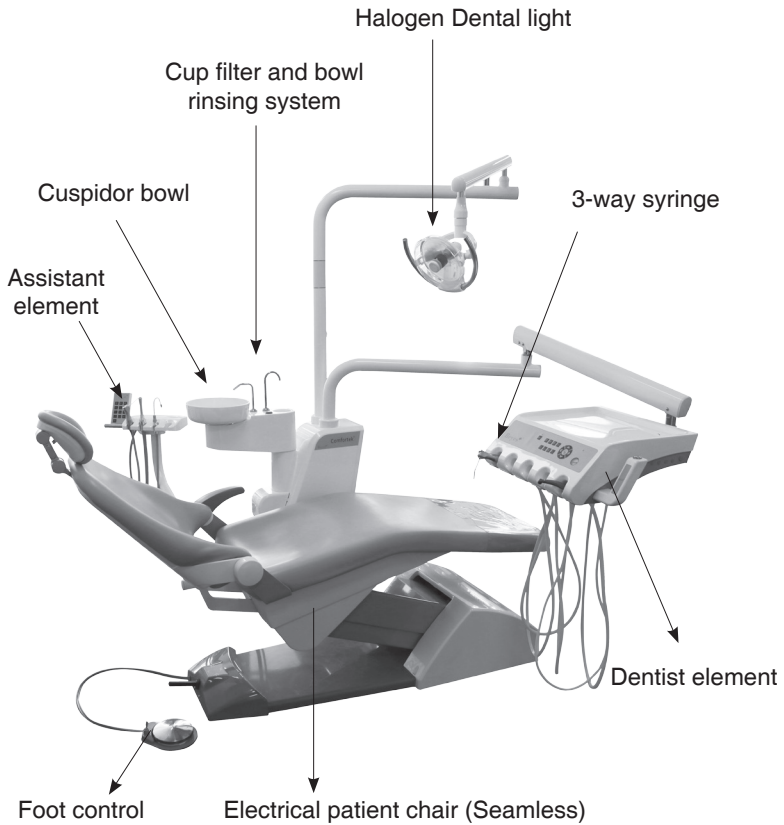
The Comfortek is specially designed to meet the needs of the dental professionals. The concept of hygienic treatment is emphasized in the unit design. Components are designed in a way dentists can easily maintain and clean it. The concept of the unit is to optimize the work flow for the dental practice, as well as provide a very clean and healthy treatment environment for both dentists and patients.

APPLICATION RANGE

This dental unit is suitable for the diagnosis, treatment and operations in the dental apartment.

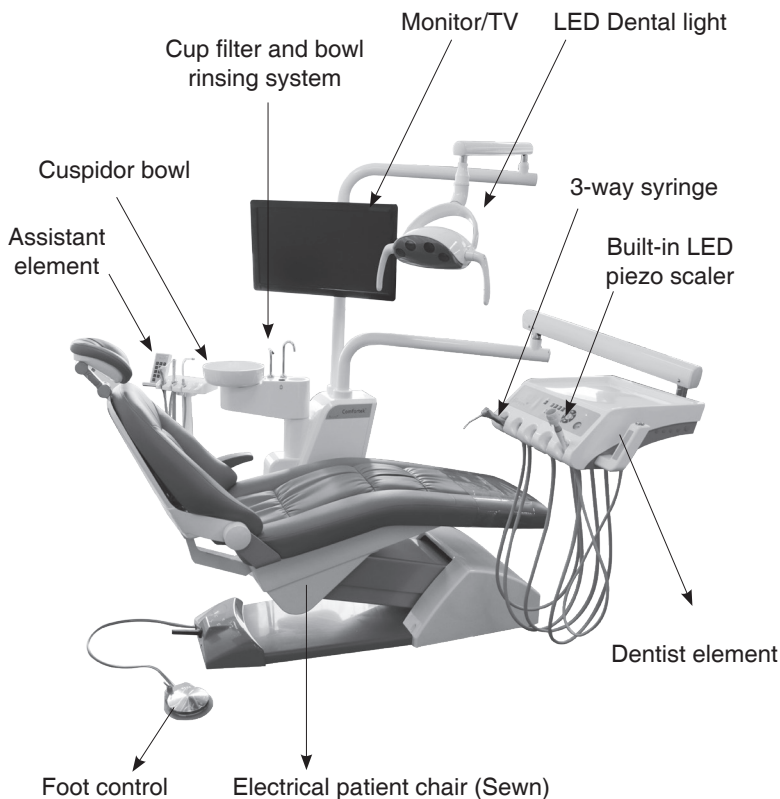
PRODUCT FUNCTION & STRUCTURE

The dental unit consists of patient chair, dentist element, assistant element, water unit and dental light.



Comfortek Smart Includes:

- Patient Chair
- Delivery Unit
- Cuspidor
- Doctor Stool
- Assistant Stool
- Seamless Upholstery
- Halogen Operating Light



Comfortek Expert Includes:

- Patient Chair
- Delivery Unit
- Operating Light
- Cuspidor
- Doctor Stool
- Sewn Upholstery
- Assistant Stool
- Flexible Up/Down Assistant Delivery Arm
- L-Shape Light post
- Built-in LED Piezo Scaler














Comfortek Master Includes:











- Patient Chair
- Delivery Unit
- Cuspidor
- Doctor Stool
- Assistant Stool
- LED Operating Light
- Sewn Upholstery
- L-Shape Light post
- Flexible Up/Down Assistant Delivery Arm
- Built-in LED Piezo Scaler
- Monitor/TV Mounting Arm
- Monitor/TV
- Built-in Computer
- Wireless Keyboard/Mouse
- Intra Oral Camera (Canaview)

Dental light maximum illuminance	≥ 25000lux
Electrical patient chair carry capacity	≥ 1323N(=135KG)
The highest position of the patient chair from the ground	≥ 780mm
The lowest position of the patient chair from the ground	≤ 450mm
Backrest movement range	110°-180°
Head rest extension range	0-100mm
Dimensions(length *width*height)	195cm x (120cm~180cm) x 200cm
Input power supply	220-230V~, 110-115V~, 50Hz/60Hz
Maximum power dissipation	300VA
Air supply pressure	0.55-0.8 Mpa/ 5.5-8.0 bar
Water supply pressure	0.20-0.40Mpa/2.0-4.0bar
Power cable requirement	Type: 227 IEC (RVV) 3 x 0.75 mm ² , according to the standard IEC 60227
Electrical classification	Group 1
EMC classification	Group 1, Class B

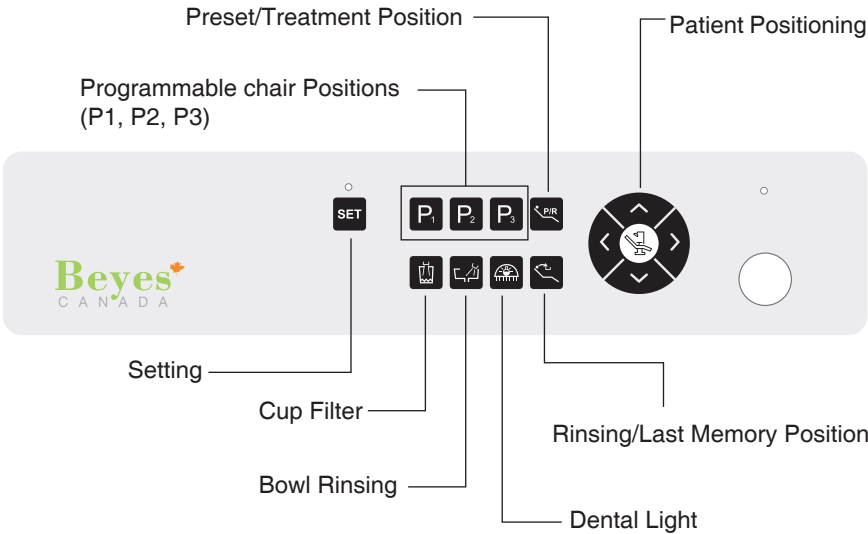


- Make sure the dental unit is well-grounded.
- This dental unit does not include any components that can be fixed by the user. Therefore, should any trouble arise do not attempt to dismantle it yourself.
- Only fuse and accessories recognized by Sirona can be used.
- Do not use this dental unit in high temperature, high humidity, vibration flammability, unbalance, of dusty environment.
- This dental unit should not come into contact with and object in its operation range of movement.
- Clean accumulated water in air pressure relieve valve regularly. Clean or replace the valve core when necessary.
- After using this dental unit or if this dental unit is not being used, the patient chair should be returned to the lowest position and water, air, and power supply should be cut off.
- The operation cycling factor of the patient chair is 20%, and the continuous operation time should not exceed one minute.
- The device has been tested and homologated in accordance with EN 60601-1-2 for EMC.
- This does not guarantee in any way that this device will not be affected by electromagnetic interference.
Avoid using the device in a high electromagnetic environment.
- Environment:
Temperature: 15~35°C
Relative Humidity: ≤80%
- **Observe the following guidelines when connecting your equipment to a power source.**
- Check the voltage rating before you connect the equipment to an electrical outlet to ensure that the required voltage and frequency match the available power source.
- This product is provided with a 3-prong power cable: connect the power cable to a grounded electrical plug and outlet.
- Do not plug the equipment power cables into an electrical outlet if the power cable is damaged.
- If you use an extension power cable, ensure that the total ampere rating of the products plugged in to the extension power cable does not exceed the ampere rating of the extension cable.
- If you must use an extension cable or power strip, ensure the extension cable or power strip is connected to a wall power outlet and not to another extension cable or power strip must be connected to a ground wire.
- Do not allow contact between the yellow/green ground wire and the power wire, otherwise electrical shock, fire or damage can occur to your dental unit.

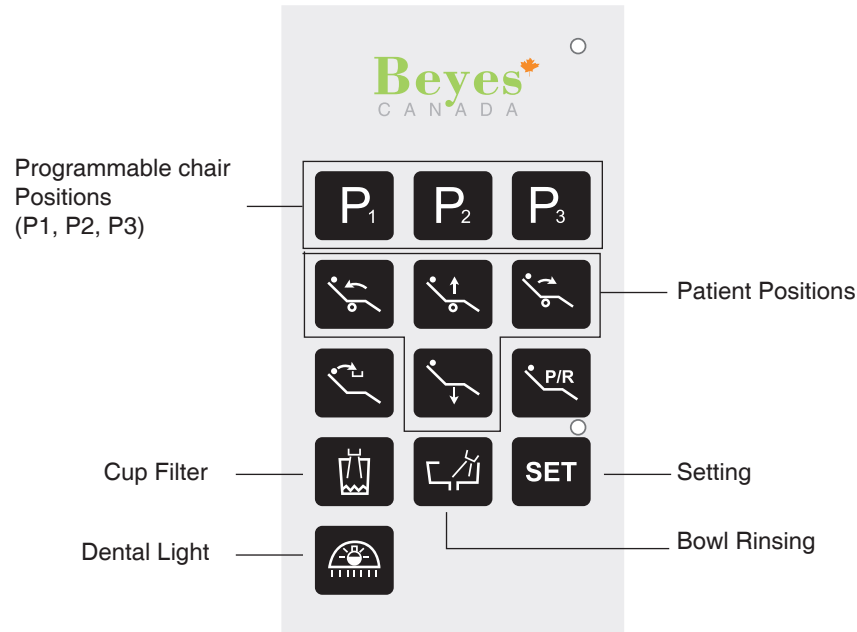
Symbols	Definition	Symbols	Definition
	ON		Fill cup
	OFF		Rinse bowl
	Attention		Dental light
	Patient chair up		Protective grounding
	Patient chair down		Clean with water
	Backrest leans forward	 135°C 275°F	Can be sterilized in autoclave at 135°C/275°F
	Backrest leans backward		

Symbols	Definition	Symbols	Definition
	Rinsing position		Handpiece water pressure adjuster
	Reset/treatment position		Handpiece air pressure adjuster
SN	Serial number		Date of manufacture
	Manufacturer		Authorised representative in the European Community
	Caution, consult accompanying documents	IPX1	Protected against dripping water
	Type B applied part		Caution, hot surface

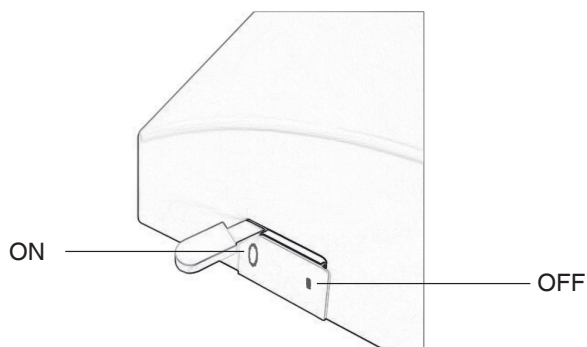
DENTIST ELEMENT PANE



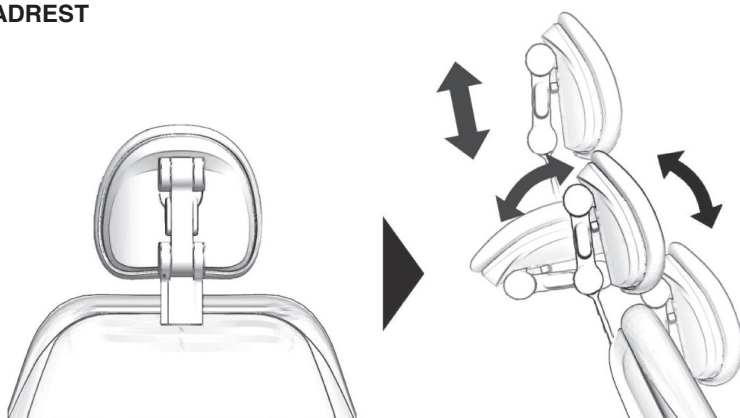
ASSISTANT ELEMENT PANEL



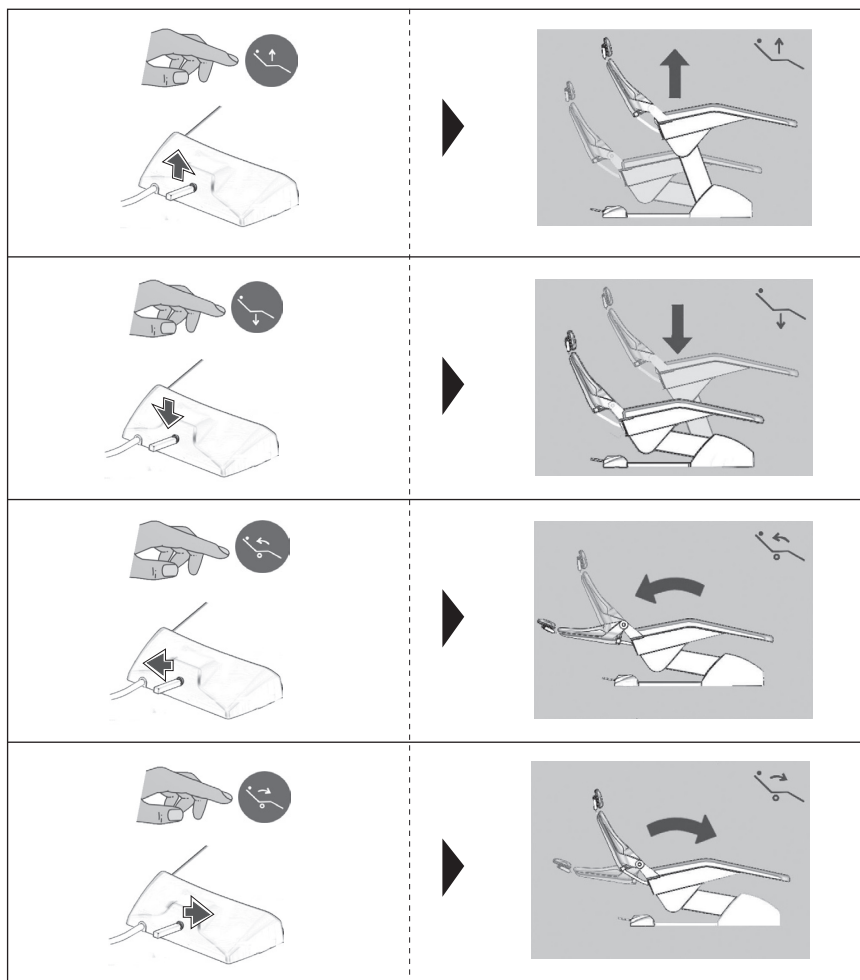
GENERAL SWITCH (WATER, AIR AND ELECTRICITY)



HEADREST

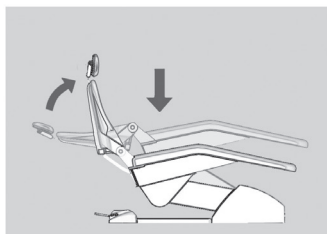


PATIENT POSITIONING

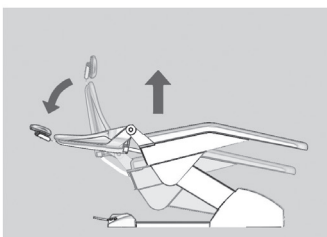
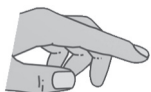


CONTROL OF PRESET POSITIONS

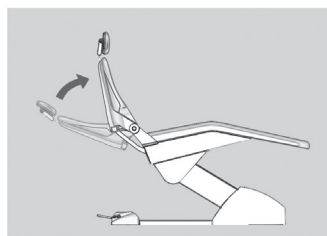
Reset Position



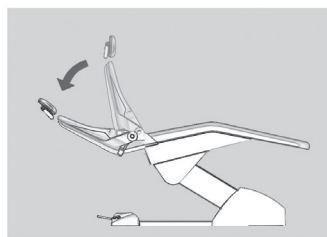
Treatment Position



Rinsing Position



Last Memory Position

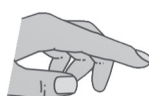
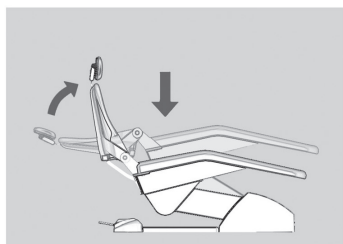


PROGRAMMABLE CHAIR POSITIONS



Set your desired chair position

- ① Adjust the chair to your desired chair position ②



SET



③



P₁ P₂ P₃

P₂ P₃

Same setting process

④

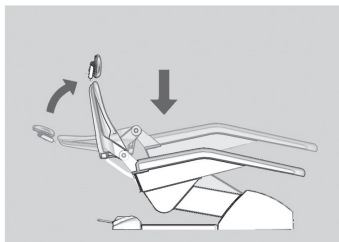


SET

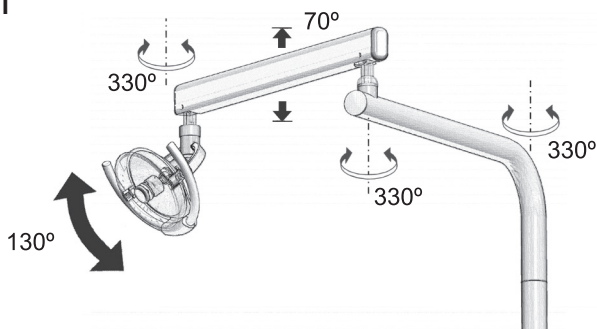
Use the programmed position



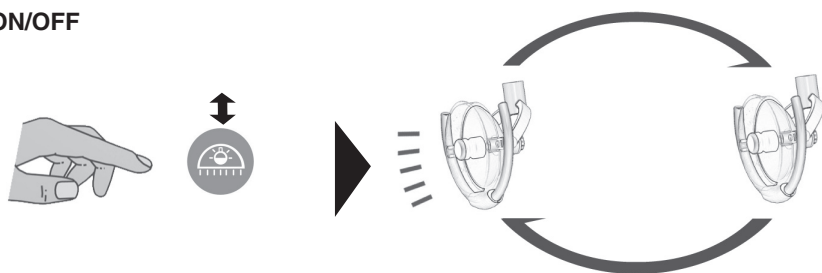
P₁ P₂ P₃



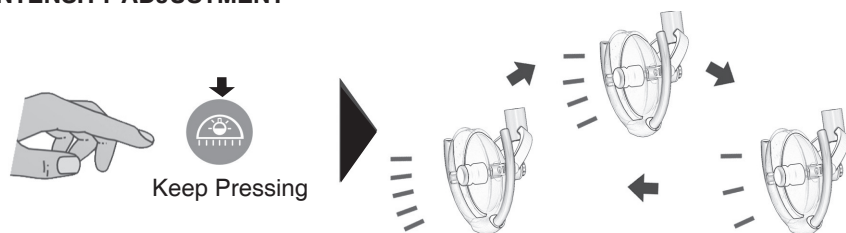
MOVEMENT



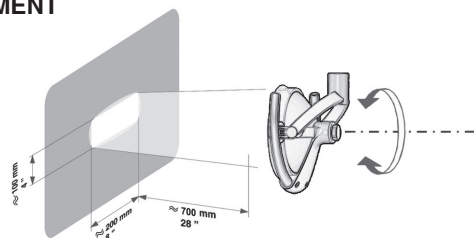
ON/OFF



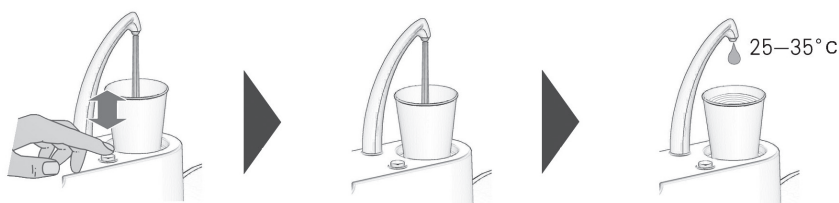
INTENSITY ADJUSTMENT



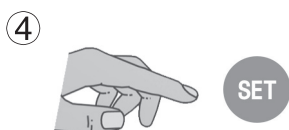
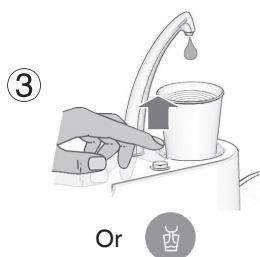
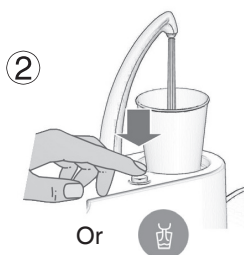
FOCUS ADJUSTMENT



CUP FILLER



SETTING PROCESS



This setting can be saved after power off.

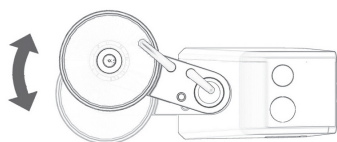


The auto volume should be no less than 100ml. Do not set the timing of cup filler when the bowl rinse is working

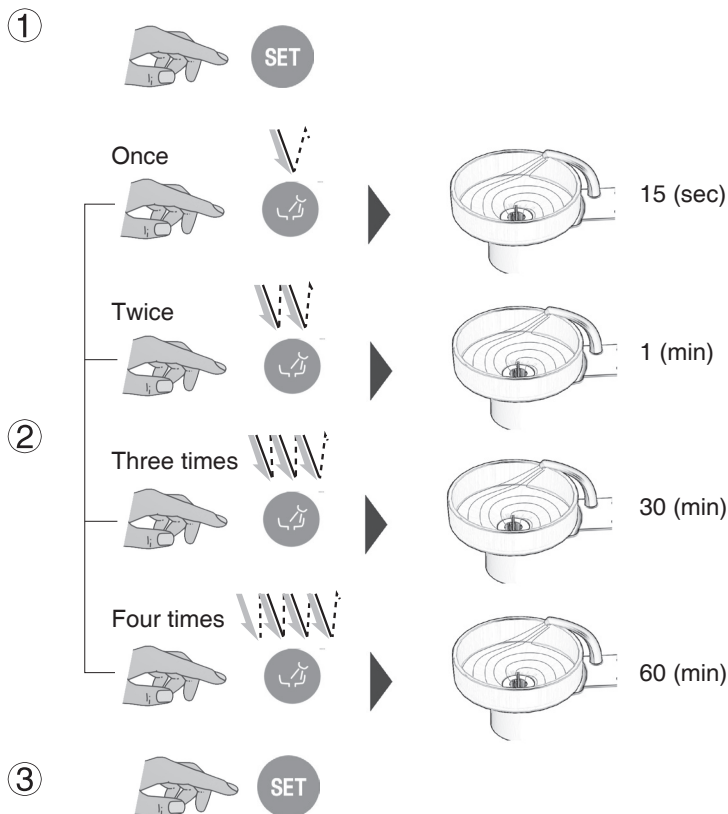
BOWL RINSING



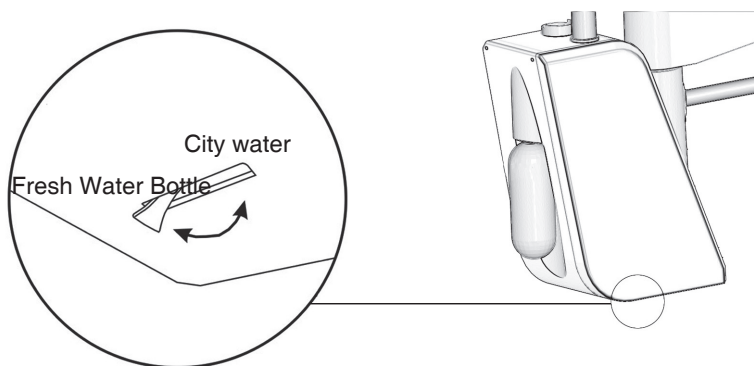
SWIVELED CUSPIDOR BOWL



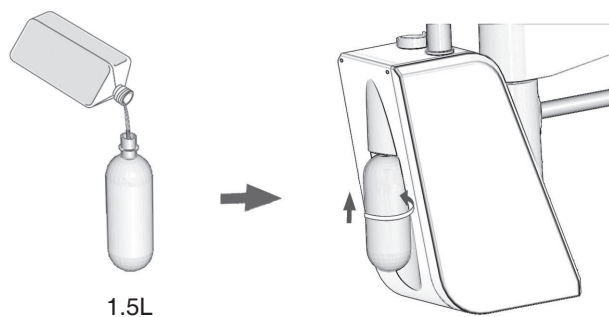
SETTING PROCESS



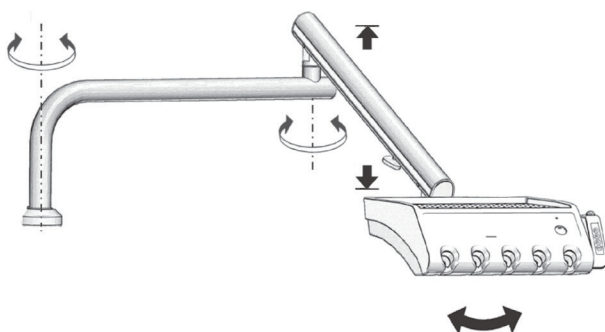
SWITCH WATER SUPPLY



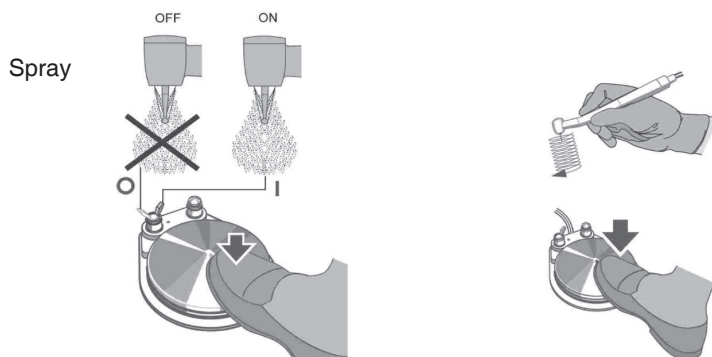
DISFILL WATER



ARM ADJUSTMENT



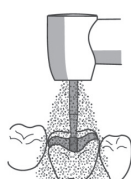
INSTRUMENT CONTROL



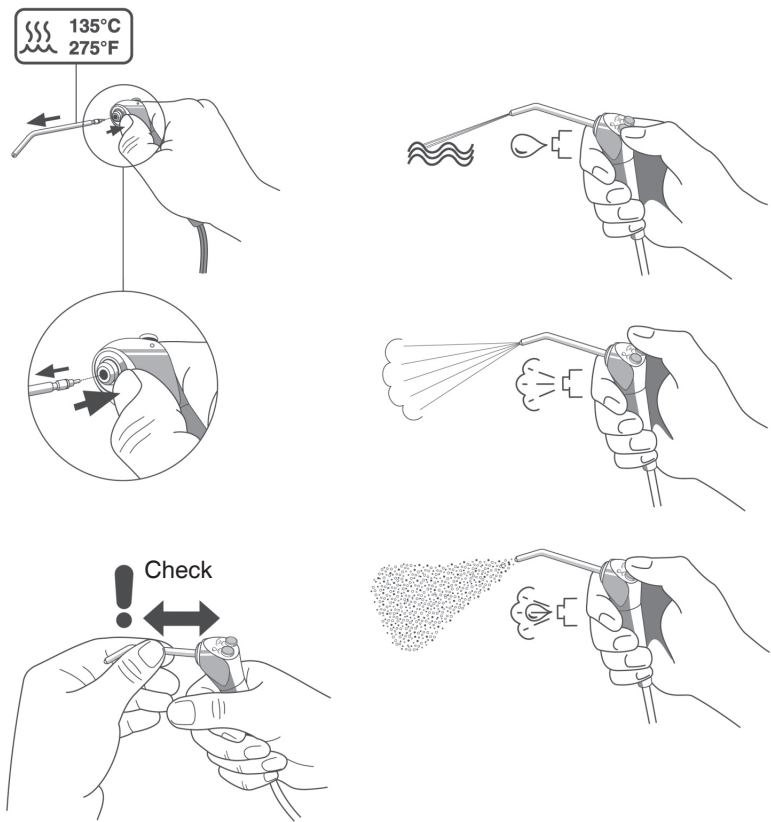
NO



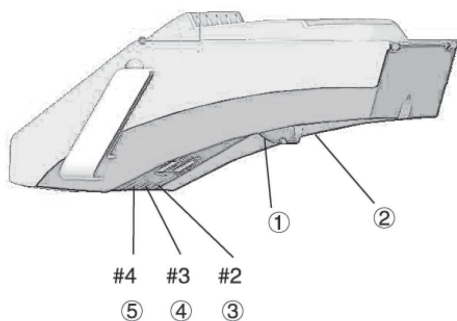
OK



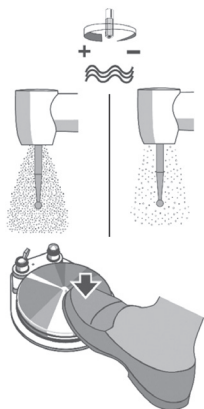
3 WAY SYRINGE



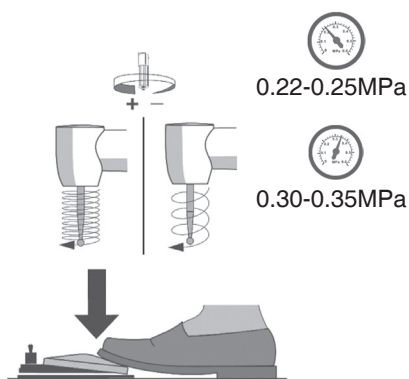
AIR/WATER PRESSURE ADJUSTMENT



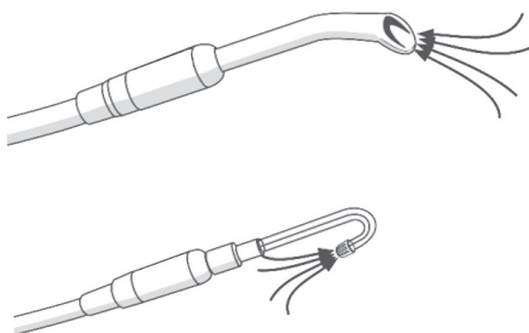
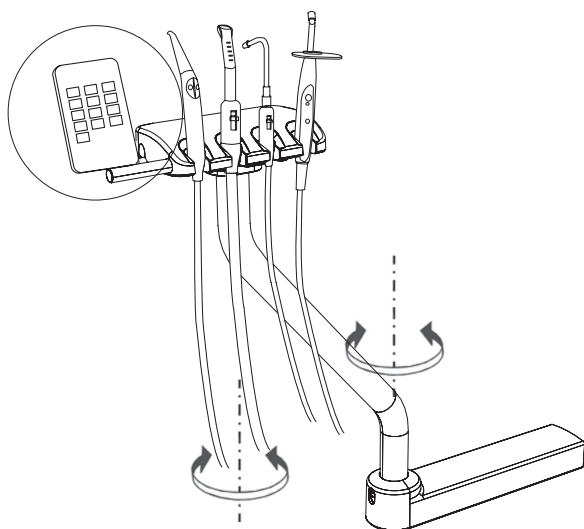
Water pressure adjuster



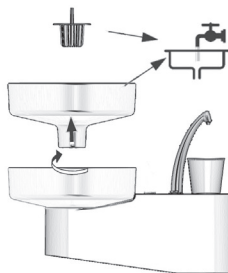
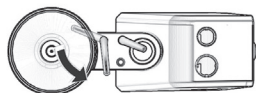
- ③ Air pressure adjuster of 2nd position
- ④ Air pressure adjuster of 3rd position
- ⑤ Air pressure adjuster of 4th position



As standard for Comfortek Expert, but as option for Comfortek smart



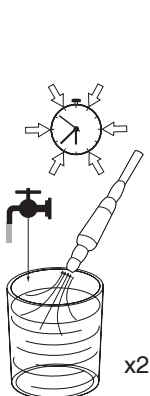
CUSPIDOR AND SUCTION



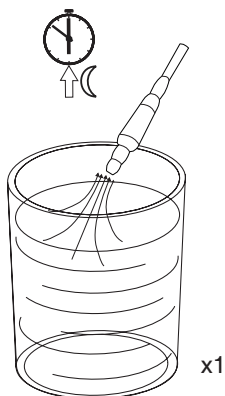
0.2 liters every 2hrs

1 liter at the end of each day

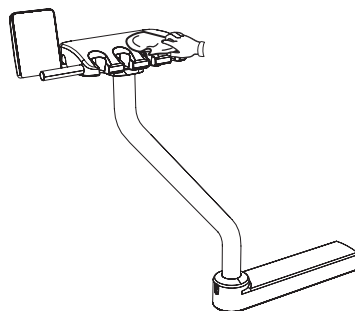
Clean suction filter at the end of each day



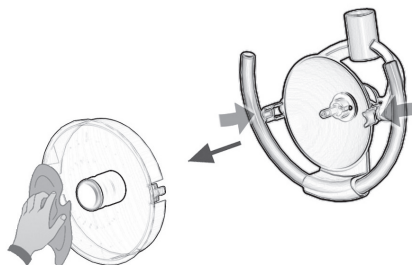
x2



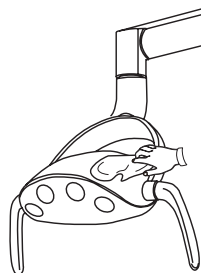
x1



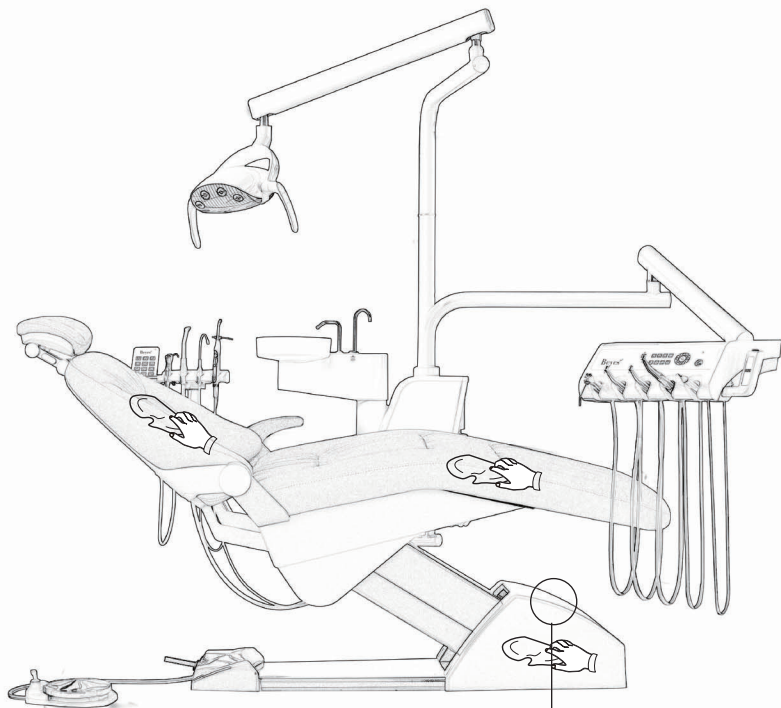
CLEANING THE DENTAL LIGHT WITH WATER



Halogen Operating Light:
Take off the lamp cover and wipe it with a clean towel



LED Light:
Wipe it with a clean towel

CLEANING THE SURFACE AND CHANGING THE FUSE

Five different fuses in the base.

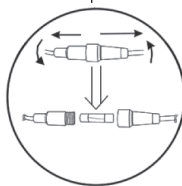
T8AL/23VAC

T3.15AL/230VAC

T1AL/12VAC

T5AL/24VAC

T6.3AL/115VAC



Maintenance should be performed by the user or operator.

Use medical alcohol(70%-75%) to clean the surface of the equipment

Components	Check period	Conditions regarding cleaning and replacement	Maintenance procedure
Water filter	Monthly	Water unclean	<ul style="list-style-type: none"> • Cut off the power and water supply. • Open the front cover, and take off the plastic container at the water filter. • Take off the filter element, and get it cleaned with water or replaced. • Reinstall the filter and front cover.
		Filter polluted	
		Used more than one year	
Air pressure relieve valve	Monthly	Water volume above 3/4 of the container	<ul style="list-style-type: none"> • Cut off the power and water supply. • Open the front cover, press te 3-way syringe, to release the air inside and drive the water outwards. • Then reinstall the front cover.
		Water unclean	
		Used more than one week	
Dirt trap	Daily	Used more than one week	<ul style="list-style-type: none"> • Clean with water.

Note: Please process the dirt according to regulation.

Malfunction	Cause Analysis	Solution
No power for dental light	Bulb damaged	Replace bulb
	Disrupture contact	Adjust with tools
	Bad connection in sockets	Adjust with tools
	Twisted cables in joints	Replace cable
No water coming from either the cup filter or bowl rinsing	Monthly	Adjust or replace hose
	Eletromagnetic valve damaged	Replace electromagnetic valve
Suctions blockage	Filter blockage in assistant element	Clean filter
	Hose blockage	Clean hose with water

Note: Please process the dirt according to regulation.


Table 201- Declaration - electromagnetic emissions

Guidance and manufacturer's declaration - electromagnetic emissions		
The product is intended for use in the electromagnetic environment specified below. The customer or the user of the product should ensure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The product must emit electromagnetic energy in order to perform its intended function. Nearby electronic equipment may be affected.
RF emissions CISPR 11	Class B	The product is suitable for use in all establishments other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonice missions IEC 61000-3-2	Not applicable	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not applicable	

Table 202 - Declaration - electromagnetic immunity

Guidance and manufacturer's declaration - electromagnetic immunity			
The product is intended for use in the electromagnetic environment specified below. The customer or the user of the product should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.

Table 204 - Declaration - electromagnetic immunity

Guidance and manufacturer's declaration - electromagnetic emissions			
The product is intended for use in the electromagnetic environment specified below. The customer or the user of the product should ensure that it is used in such an environment.			
Immunity test	IEC 60501 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms	<p>Portable and mobile RF communications equipment should be used no closer to any part of the product, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p>$d = 1,2\sqrt{P}$</p> <p>$d = 1,2\sqrt{P}$, 80 MHz to 800 MHz</p> <p>$d = 1,2\sqrt{P}$, 80MHz to 2.5GHz</p> <p>Where P is the maximum output power rating of the transmitter in watts(w) according to the transmitter manufacturer and d is the recommended separation distance in meters(m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, should be less than the compliance level in each frequency range. Interference may occur in the vicinity of equipment marked with the following symbol:</p> 
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	
<p>NOTE 1 At 80MHz end 800 MHz.the higher frequency range applies.</p> <p>NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</p>			

a. Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the product is used exceeds the applicable RF compliance level above, the product should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the Model Number or Type Number -by manufacturer.

b. Over the frequency range 150 kHz to 80 MHz, field strengths should be less than [V]V/m.

Table 206-Recommended separation distances between portable and mobile RF communications equipment and the product

Recommended separation distances between portable and mobile RF communications equipment and the product

The product is intended for use In an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the product can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the product as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = 1,2\sqrt{P}$	80 MHz to 800 MHz $d = 1,2\sqrt{P}$	80 MHz to 2.5 GHz $d = 1,2\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance(d) in meters(m) can be estimated using the equation applicable to the frequency of the transmitter, where P the maximum output power rating or the transmitter in watts(W) accordable to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz. the separation distance for the higher frequency range applies

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection structures, objects and people.

SCOPE OF WARRANTY

BEYES Dental Canada Inc. warrants to the original retail purchaser that it will be at BEYES option to repair or replace components of the dental products manufactured by BEYES (except for components not warranted under 'Exclusions') that are defective in material or workmanship under normal use and service. BEYES' obligation under this limited warranty is limited to the repair or replacement of the applicable components. This limited warranty shall only apply to defects that are reported to BEYES within the applicable warranty period and which, upon examination by Beyes, prove to be defective. This warranty extends only to the first retail purchaser of a product and is not transferable or assignable. Replacement components or products may be used and/or refurbished components or products, provided they are of like quality and specifications as new components or products.

APPLICABLE WARRANTY PERIOD

The applicable warranty period, measured from the date of invoice to the original user, shall be as follows

Comfortek Dental Chair System are warranted for a period of 24 months

EXCLUSIONS

This limited warranty does not cover and BEYES shall not be liable for the following;

- (1) Defects, damage or other conditions caused, in whole or in part, by misuse, abuse, negligence, alteration, accident, freight damage, negligent storage, tampering or failure to seek and obtain repair or replacement in a timely manner;
- (2) Products which are not installed, used, and properly cleaned and maintained as required or recommended in the BEYES 'Installation' and/or 'Installation/ Operation Manual' for the applicable product, including the specified structural and operational environment conditions and electrical power requirements;
- (3) Products considered to be of a consumable or sterile nature;
- (4) Accessories or parts not manufactured by BEYES;
- (5) Charges by anyone for adjustments, repairs, replacement parts, installation or other work performed upon or in connection with such products which are not expressly authorized in writing in advance by BEYES;

- (6) Costs and expenses of routine maintenance and cleaning;
- (7) Representations and warranties made by any person or entity other than BEYES;
- (8) Matching of color, grain or texture except to commercially acceptable standards;
- (9) Changes in color caused by natural or artificial light;
- (10) Custom manufactured products;
- (11) Alterations or modifications to the product by any person or entity other than BEYES;
- (12) Products that would otherwise be covered under Sections 1 and 2 of this limited warranty, but are acquired: (i) from a person or entity that is not BEYES or one of its authorized dealers; or (ii) from a BEYES dealer that is not authorized to sell the product at issue in the geographic territory where the purchaser is located, or is not authorized to sell the product at issue within the medical, animal health or dental market, as the case may be, in which purchaser intends to use the product.

EXCLUSIVE REMEDY; CONSEQUENTIAL DAMAGES DISCLAIMER

Beyes' obligation under this limited warranty is the repair or replacement of defective parts. Beyes shall not be liable for and hereby disclaims any direct, special, indirect, incidental, exemplary or consequential damages or delays, including, but not limited to, damages for loss of profits or income, loss of use, downtime, cover and employee or independent contractor wages, payments and benefits.

WARRANTY DISCLAIMER

This limited warranty is beyes only warranty and is in lieu of all other warranties, express or implied. Beyes makes no implied warranties of any kind including any implied warranties of merchantability or fitness for a particular purpose. This warranty is limited to the repair or replacement of defective parts.

STATUE OF LIMITATIONS

No actions may be brought against beyes for breach of this limited warranty, or implied warranty, if any, or for any other claims arising out of or relating to the products, more than ninety (90) days following expiration of the limited warranty period.

Comfortek®

Beyes®
The Next Standard

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