

bright Alone

User Manual

IMPORTANT NOTES

Please read this manual thoroughly in advance to use the equipment smoothly.



Dentium

Revision History

Rev. No.	Rev. Date	Description
0	2020.08.21	First Edition
1	2021.06.14	Added Alarm Deletion and Sanitation
2	2022.12.20	Edited European representative information
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Manual guide

Thank you for purchasing Dentium bright Alone, the latest dental treatment equipment & chair (ICT-CH02).

This manual describes in detail how to use, how to handle, or what is related to general use.

Please read this manual thoroughly in advance to use the equipment smoothly.

Please keep the manual around the equipment for reference at any time.

The manual is subject to change without notice due to product quality upgrades and specification changes.

Before using the product, be sure to read “Safety Precautions” and use the equipment correctly.

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Product description

This product is a dental treatment device & chair equipped with the necessary equipment to be used for various dental treatments.

1. Precautions for safety

• Precautions before use

- Ensure that the medical device is operated by a qualified person.
- Be sure to read the instruction manual before use.
- Disinfect all accessories that require disinfection before use.
- When using the equipment, be sure to check the operating conditions, status check, and the distance from the patient.
- Do not modify the equipment without the manufacturer's permission. Damage to the device due to user disassembly is not covered under warranty even within the warranty period.
- Do not place similar medical electrical devices near the equipment. It may degrade the performance of your device.
- Keep away from other sources of electromagnetic energy to avoid electromagnetic interference.
- If you use a product other than the recommended product, it may cause performance degradation or malfunction.

• Precautions for Product Operation

- Be sure to keep the handpiece in the dedicated cradle after the procedure.
- Be careful not to touch with your hands or other objects while the surgical instrument is rotating.
- Do not assemble or disassemble the handpiece while the device is in operation.
- Connect the handpiece after the micromotor and related devices have completely stopped working.
- Do not apply excessive load to the equipment, as excessive force or excessive force may cause malfunction or deterioration of the equipment.
- If noise or heat generation occurs during use, stop using it immediately and contact the nearest Dentium branch or manufacturer to check before use.
- If you use a product other than the recommended product, it may cause performance degradation or malfunction.
- Do not drop the handpiece or subject it to strong external impact.
- This product is not a medical device to provide heat to the patient.
- The product is applicable to healthy skin of adults.
- People with poor blood flow (vascular disorders, blood circulation disorders, diabetes, high blood pressure) or weak skin sensitivity are prone to low-temperature burns.
- For inspection and repair of the device, contact the point of purchase or the manufacturer.

- Do not put objects in the movable parts or range of movement of the body, such as the joint of the backrest under the seat or put your fingers or feet. If it gets caught during operation, it may cause injury or damage or malfunction of the device.
- Do not apply excessive load to the table arm or light arm, or place heavy objects on, lean on, or sit on the end of the seat, backrest, headrest, or table, auxiliary tray, or mouse tray. The fall or breakage of the device may cause injury to the user or malfunction of the device.
- Observe safety precautions and ensure proper use of the device while operating the device.
- Do not install the device in an unsafe place subject to inclination, vibration, or impact.
- Do not operate the device except for qualified personnel.
- Avoid any movements or postures that endanger the patient.
- Be careful not to get your fingers or body parts caught in the moving parts of the main body.
- Do not allow more than two people to sit on the seat. Climbing up with a child can be dangerous.
- Do not allow people not related to medical care to approach the device.
- If there is a risk such as a collision while operating the seat of the body, press one of the chair operation keys on the table control panel on Dr. Table's side or the auxiliary table's side to perform an emergency stop operation.
- For inspection and repair of the device, contact the point of purchase or the manufacturer.

• Precautions when using the product

- The operation of the treatment table may cause injury or harm to the patient and the operator.
- Be careful of both the patient and the operator when the treatment table is operating.
- Actions such as jumping on the treatment table can be dangerous.
- Do not apply more than 30N(3kgf) load to Dr. table.
- Do not apply more than 20N(2kgf) load to the auxiliary table.
- If an inappropriate medical system device is connected to the medical device, it may cause an electric shock. When connecting IT devices to medical equipment, comply with the provisions of IEC60601-1 and IEC60601-1-2.
- Do not stick stickers or adhesive tape to the instrument tube. The tube may be torn.
- Drain the water in the water pipe for about 2 minutes before starting treatment every day.

- When the equipment is not in use, wash or drain the water and air pipes.
- Thoroughly disinfect the equipment.
- After treatment, water the spittoon several times.
- Be careful when treating patients for a long time as pressure sores may occur.
- When replacing the tips or bars of all instruments, be sure to replace them in a stopped state. Replacing during operation may cause unexpected accidents and hazards. In addition, replacing with a non-certified product may cause unexpected accidents or hazards.
- When inserting each instrument into the holder, make sure to tighten it slowly and securely.
- Do not subject the watering system to a serious impact or load.
- Do not overuse or disassemble the equipment.
- If you reach out to a table or instrument, your hand or sleeve may become caught on the instrument in the holder, resulting in injury or infection.
- Be careful not to let your body come into contact with or around the light head during or after use.
- Do not look directly into the patient's eyes while the lamp is on.

• Electrical Precautions

- Be sure to use AC220V for input power.
- Do not install the equipment in a place where it is difficult to connect the power plug.
- If you need to change the input power, contact the nearest sales office or manufacturer.
- Do not unplug the power plug forcibly.
- Periodically wipe off foreign substances (dust, water, etc.) on the power plug terminals and contacts with a dry cloth.
- Do not forcibly bend, pull, twist, or tie the power cord. Also, do not hang it on metal parts, place heavy objects on it, insert it between instruments, or push it behind the product.
- Connect the power plug all the way to the outlet, and do not use a damaged power plug, power cord, or loose outlet.

- **Warning**

- Do not pour or spray liquid substances such as water or sprays on this product. It may cause electric shock, damage to equipment, fire, etc.
- Do not store flammable materials around the equipment, otherwise it may cause a fire.
- Never operate the operation switch of the equipment while the equipment is operating. It may cause equipment malfunction.
- In the event of an electrical fire, a fire extinguisher marked for that purpose must be used. The use of water or liquids in electrical fires can cause serious damage and damage to people and equipment. Disconnect the electrical plug before extinguishing the fire to avoid the risk of electric shock.
- Do not sterilize or disinfect with a spray. The sprayed sterilizer/disinfectant may ignite.

- **Manufacturer's Obligation Policy**

For Dentium's bright Alone dental treatment device (ICT-CH02), the manufacturer is responsible for product safety and normal operation only in the following cases

- When it is not an accident or equipment damage caused by the customer's negligence
- When the product is used normally in accordance with the user manual
- When using a genuine product approved by the manufacturer
- In case of maintenance/maintenance by an authorized dealer in the manufacturing
- When the product is installed by a dealer authorized by the manufacturer
- When the equipment is installed in compliance with the installation conditions and precautions presented by the manufacturer



Caution

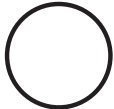
- Never disassemble or modify the product.
- An untrained person may cause harm when replacing parts.

• Safety instructions

– Symbols used in this manual

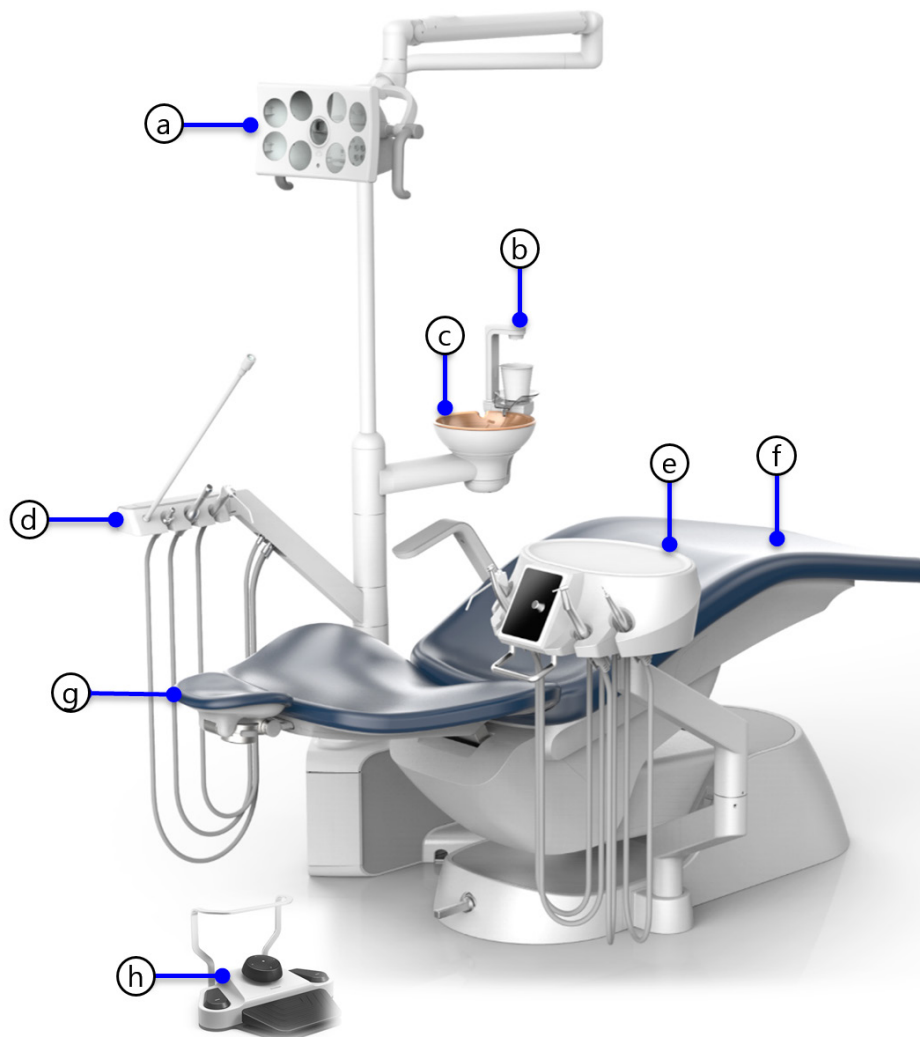
In this manual, for the efficient use of the product, the following symbols are used to fully understand the meaning of the symbols and follow them.

To avoid personal injury and property damage, observe the safety precautions specified in this document. Notices are indicated by the symbol below.

Symbol	Name	Description
	NOTE	Indicates help or notes when using the product.
	CAUTION	Failure to comply may result in user injury.
	WARNING	Failure to comply may result in death or serious injury to the user.
	ELECTRIC SHOCK	If touched, there is a risk of injury from electric shock.
IPX1	RATE OF WATERPROOF	Shows waterproof rating of 1.
	ELECTROMAGNETIC INTERFERENCE	Indicates electromagnetic interference.
	SEPERATE DISPOSAL OF ELECTRIC AND ELECTRONOC PRODUCT	It must be disposed of as instructed.
	ON	Shows power on.
	OFF	Shows power off.

Symbol	Name	Description
	PE	Indicates the protective earth terminal (safety earth).
	Operation Guideline	The operating instructions in the user manual must be followed.
	Protection Against Electric Shock	The degree of protection against electric shock is type B.
	MANUFACTURING DATE	Displays the date of manufacture.
	MANUFACTURER	Identifies the manufacturer of the product.
	EUROPEAN REPRESENTATIVE	Represents a European representative.
	MODEL NAME	Indicates the manufacturer's model name.
	SERIAL NO.	Indicates the manufacturer's serial number.
	ACTIVE POWER	Displays power consumption.
	Temperature limit	Displays the operating temperature range.
	Humidity limitation	Displays the operating humidity range.

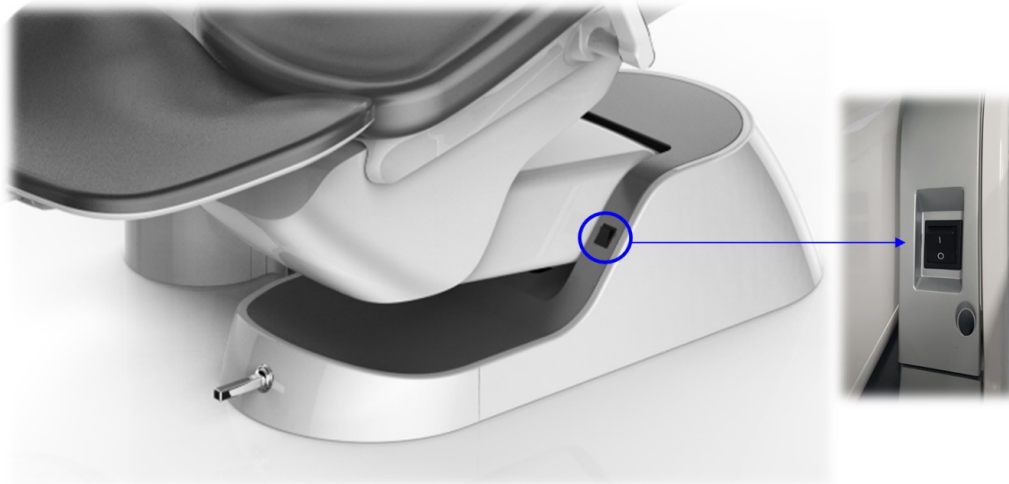
2. Name of Each Part



No.	Name	Function
(a)	Dental light	The LED light is irradiated to the patient's mouth for treatment.
(b)	Water inlet	Provide water so the patient can gargle.
(c)	Spittoon	Patient can gargle.
(d)	Auxiliary table	Operate the unit chair and mount the medical equipment used by the nurse.
(e)	Dr. table	Operate the unit chair and mount the medical equipment used by the doctor.
(f)	Sheet	Move the patient to the treatment location.
(g)	Headrest	Move the patient's head to the treatment position.
(h)	Foot controller	Controls the functions required for chair operation.

3. How to operate each part

3.1 How to use the power system



Name	How to use
Main switch	Turn on the power by pressing the power switch to the “I” direction. I: Power on O: Power off



Caution

- When the device is not in use, the power switch must be turned OFF.



Note

- Check and use the power supply (220[V]) for the device.
- When the power is turned on, the Dentium logo is displayed on the Dr. table LCD.

3.2 How to use Dr. Table

3.2.1 Oval Dr. Table

When the handpiece is removed from the instrument holder, the instrument information is displayed on the LCD screen and the handpiece operates when the foot switch is pressed.



No.	Name
①	3 way syringe
②	High speed handpiece
③	Control panel
④	Low speed handpiece
⑤	Scaler



Warning

- Do not place objects more than 2 kg on the table. (with accessories)
- Do not use excessive force or subject it to strong impact.
- When using a table or an instrument, be careful not to get injured by hanging on your sleeve.



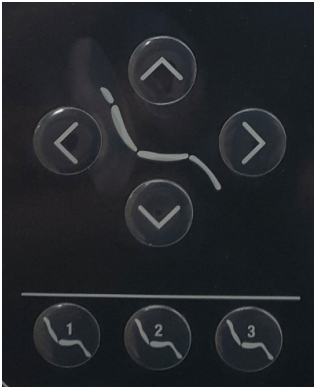
Note

- The arrangement of instruments can be changed, and in order to apply the desired arrangement, please request the service to the local distributor.
- Dr. Table's silicone pad sterilization conditions: up to 134 degrees for 5 minutes or more, within 20 minutes.

A. How to use the control panel

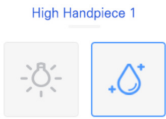
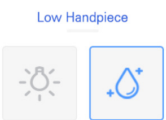
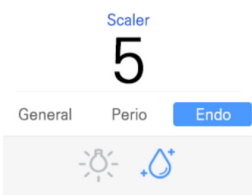
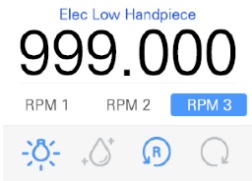


– How to use the control panel

Button		How to use
		When the button is pressed, the medical chair rises, and when released, it stops.
		When the button is pressed, the treatment chair descends, and when released, it stops.
		When the button is pressed, the back of the treatment chair rises, and when released, it stops.
		When the button is pressed, the back of the treatment chair descends, and when released, it stops.
		Treatment position storage function (Mode1,2,3) After setting the chair position, select buttons 1-3 and press for more than 5 seconds to save the position. After saving, press the button to move to the set position.
		
		

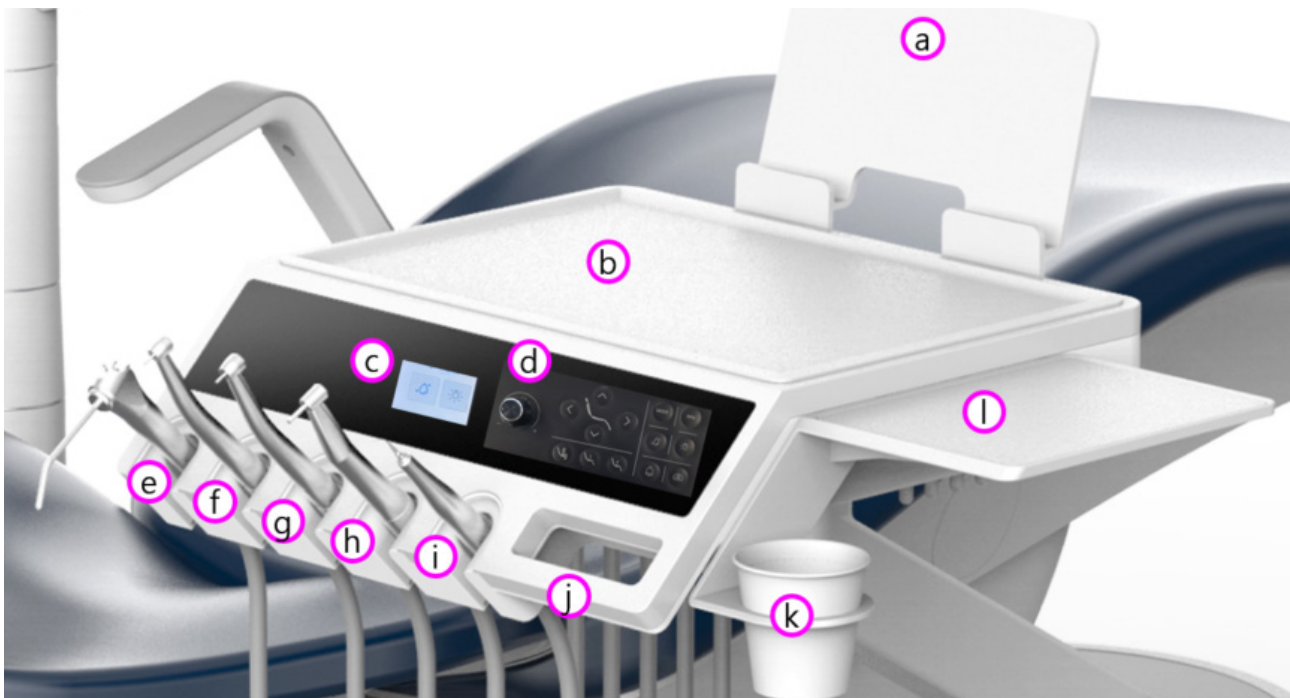
– How to use the control panel

Buttons	How to use
	 - The volume control that can change the set value. - Rotating to – direction decreases the value. - Rotating to + direction increases the value.
	 - Hold the Elec Low handpiece and press the Mode button to select the rotating direction of the bur (forward or reverse). - Hold the scaler and press Mode button to set General → Perio → Endo function and set the desired mode.
	 Press the RPM button to select RPM1 → RPM2 → RPM3 step by step. To save RPM in each mode, select a mode, set the volume, and press the RPM button for 5 seconds to save.
	 Holding the handpiece and pressing the water drop button can control the watering ON/OFF. Press and hold the water drop button for more than 5 seconds to enter the water tubing cleaning mode.
	 This button can turn the handpiece light on/off.
	 Press this button to move to the starting position.
	 This is a switch that can control the dental light. Press once to turn on, press again to turn off.

No.	Image	Description
1		When the power switch is turned on, the Dentium logo is displayed on the LCD.
2		When the High Speed Handpiece is removed from the holder, the left screen appears on the LCD and is activated in blue color. – Watering ON/OFF is displayed. – Handpiece light ON/OFF is displayed.
3		When the low speed handpiece is removed from the holder, the left screen appears on the LCD and is activated in blue color. – Watering ON/OFF is displayed. – Handpiece light ON/OFF is displayed.
4		When the scaler handpiece is removed from the holder, the left screen appears on the LCD and is activated in blue color. – General, Perio, Endo modes are displayed. – Watering ON/OFF is displayed. – Handpiece light ON/OFF is displayed.
5		When the electric low handpiece is removed from the holder, the left screen appears on the LCD and is activated with a blue indicator. – RPM1, RPM2, RPM3 are displayed. – Handpiece light ON/OFF is displayed. – Watering ON/OFF is displayed. – The direction of motor rotation is displayed.

 Note	• It is not possible to move the position of the medical chair while the handpiece is in operation. • When using multiple handpieces, the first handpiece is activated.
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3.2.2 Rectangular Dr. Table



No.	Name	No.	Name
(a)	Tablet & Monitor Stand	(g)	High Speed Handpiece 2
(b)	Silicone pad	(h)	Low speed handpiece
(c)	LCD	(i)	Scaler
(d)	Control panel	(j)	Moving handle
(e)	3 way syringe	(k)	Cup holder
(f)	High Speed Handpiece 1	(l)	Mouse rest



Warning

- Do not place objects exceeding 2 kg on the table. (with accessories)
- Do not use excessive force or subject it to strong impact.
- When using a table or an instrument, be careful not to get injured by hanging on your sleeve.



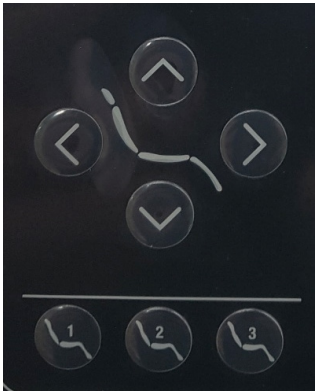
Note

- The arrangement of the instrument to be mounted on the holder can be changed as needed and may differ from the picture above. Please contact local distributor for service to apply the desired type and arrangement.
- Periodically sterilize Dr. table's silicone pad. (sterilization conditions: up to 134 degrees within 5 minutes and within 20 minutes)

A. Configuration of the control panel

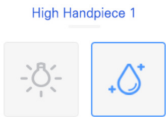
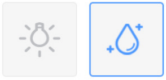
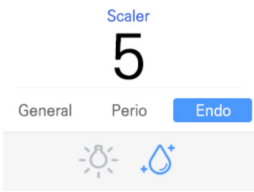
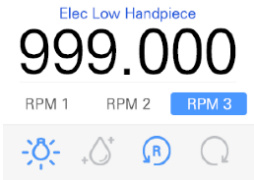


– How to use the control panel

Button		How to use
		When the button is pressed, the medical chair rises, and when released, it stops.
		When the button is pressed, the treatment chair descends, and when released, it stops.
		When the button is pressed, the back of the treatment chair rises, and when released, it stops.
		When the button is pressed, the back of the treatment chair descends, and when released, it stops.
		Treatment position storage function (Mode1,2,3) After setting the chair position, select buttons 1-3 and press for more than 5 seconds to save the position. After saving, press the button to move to the set position.
		
		

– How to use the control panel

Button	How to use
	MODE 1. Hold the Elec Low handpiece and press the Mode button to select the rotating direction of the bur (forward or reverse). 2. Hold the scaler and press Mode button to set General → Perio → Endo function and set the desired mode.
	RPM Press the RPM button to select RPM1 → RPM2 → RPM3 step by step. To save RPM in each mode, select a mode, set the volume, and press the RPM button for 5 seconds to save.
	 Holding the handpiece and pressing the water drop button can control the watering ON/OFF. Press and hold the water drop button for more than 5 seconds to enter the water pipe cleaning mode.
	 This button can turn the handpiece light on/off.
	 Press this button to move to the starting position.
	 This is a switch that can control the dental light. Press once to turn on, press again to turn off.

No.	Image	Description
1		When the power switch is turned on, the Dentium logo is displayed on the LCD.
2		When the High Speed Handpiece is removed from the holder, the left screen appears on the LCD and is activated in blue color. – Watering ON/OFF is displayed. – Handpiece light ON/OFF is displayed.
3		When the low speed handpiece is removed from the holder, the left screen appears on the LCD and is activated in blue color. – Watering ON/OFF is displayed. – Handpiece light ON/OFF is displayed.
4		When the low speed handpiece is removed from the holder, the left screen appears on the LCD and is activated in blue color. – Watering ON/OFF is displayed. – Handpiece light ON/OFF is displayed.
5		When the scaler handpiece is removed from the holder, the left screen appears on the LCD and is activated in blue color. – General, Perio, Endo modes are displayed. – Watering ON/OFF is displayed. – Handpiece light ON/OFF is displayed.
6		When the electric low handpiece is removed from the holder, the left screen appears on the LCD and is activated with a blue indicator. – RPM1, RPM2, RPM3 are displayed. – Handpiece light ON/OFF is displayed. – Watering ON/OFF is displayed. – The direction of motor rotation is displayed.



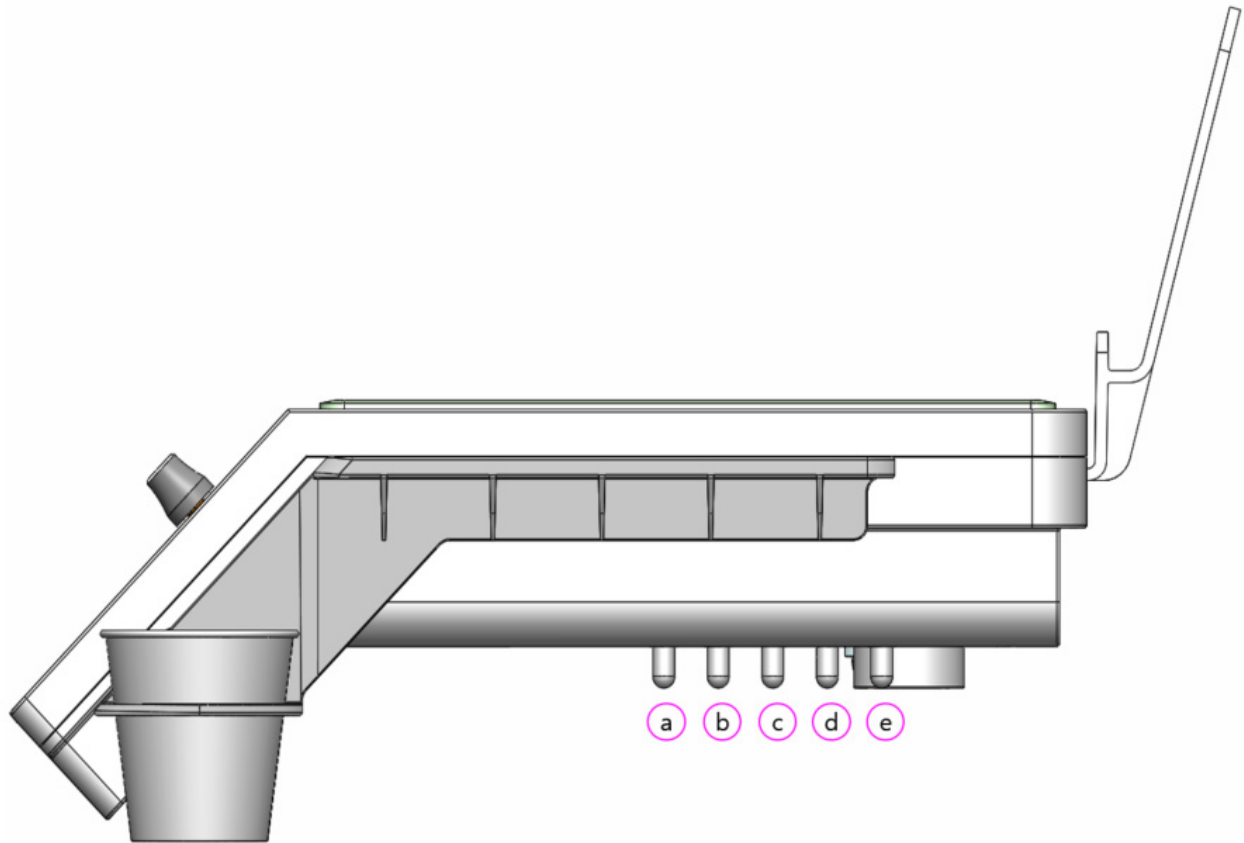
Note

- It is not possible to move the position of the medical chair while the handpiece is in operation.
- When using multiple handpieces, the first handpiece is activated.

3.3 How to use Dr. table

3.3.1 How to adjust the water flow of the handpiece

There are 5 volume control valves for each handpiece as shown in the figure below. Turning it clockwise decreases the watering amount, and turning it counterclockwise increases the watering amount. You can adjust the watering amount by adjusting the water amount.



No.	Name
(a)	3 way syringe
(b)	High Speed Handpiece 1
(c)	High Speed Handpiece 2
(d)	Low speed handpiece
(e)	Scaler

3.3.2 How to use the high handpiece

- Remove the handpiece from the holder and press the foot switch pedal to activate the Hi-handpiece.
- The speed can be adjusted according to the depth of pressing of the foot switch.

Display in screen	How to use
	When using the High Handpiece, the High Handpiece screen appears on the LCD screen. Press the function button of the front panel to change settings.

Display in screen	Button	Function
		Press the button to select Handpiece Light On/Off.
		Press the button to select the watering On/Off.

 Warning	• You can't change settings while the handpiece is operating. • Lifting the handpiece while pressing the foot control switch may result in personal injury. Be sure to hold the handpiece first and, then press the foot switch.
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 Note	• The position of the medical chair cannot be moved while the handpiece is in operation. • To adjust the brightness of the handpiece light, contact our local distributor for service.
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3.3.3 How to use the Low Handpiece

- Remove the handpiece from the holder and press the foot switch pedal to activate the Hi-handpiece.
- The speed can be adjusted according to the depth of pressing of the foot switch.

Display in screen	How to use
	When using the High Handpiece, the Low Handpiece screen appears on the LCD screen. Press the function button of the front panel to change settings.

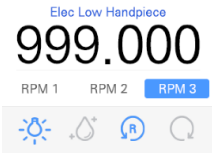
Display in screen	Button	Function
		Press the button to select Handpiece Light On/Off.
		Press the button to select the watering On/Off.

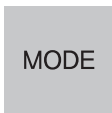
 Warning	• You can't change settings while the handpiece is operating. • Lifting the handpiece while pressing the foot control switch may result in personal injury. Be sure to hold the handpiece first and, then press the foot switch.
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 Note	• The position of the medical chair cannot be moved while the handpiece is in operation. • To adjust the brightness of the handpiece light, contact our local distributor for service.
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3.3.4 How to use Elec Low Handpiece

- Remove the handpiece from the holder and press the foot control pedal to activate the Hi-handpiece.
- The speed can be adjusted according to the depth of pressing of the foot control pedal.

Display in screen	How to use
	Taking out the Elec Low Handpiece will show Elec Low Handpiece setting screen on the LCD display. You can change the settings by adjusting the dial on the front panel of Dr. table and pressing RPM and Mode buttons.

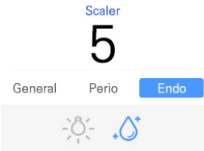
Display in screen	Button	Function
		• RPM increases: Rotate the volume clockwise • RPM Decreases: Rotate the volume counterclockwise
		• Press RPM Button to move from RPM1 → RPM2 → RPM3 step by step. • Save RPM: Set RPM in each mode of RPM1, RPM2, RPM3, press the button and hold for more than 5 seconds to save.
		Press the button to select the rotating direction of the bur.
		Press the button to control the Handpiece Light On/Off.
		Press the button to set the watering On/Off

 Warning	• You can't change settings while the handpiece is operating. • Lifting the handpiece while pressing the foot control switch may result in personal injury. Be sure to hold the handpiece first and, then press the foot switch.
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 Note	• The position of the medical chair cannot be moved while the handpiece is in operation. • To adjust the brightness of the handpiece light, contact our local distributor for service.
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3.3.5 How to use the Scaler

- Remove the scaler handpiece from the holder and press the foot switch pedal to activate the scaler handpiece.
- The power of the scaler handpiece can be adjusted according to the scaler adjustment of the LCD Display in screen.

Display in screen	How to use
	• When the scaler is removed from the holder, the LCD screen is activated and the scaler setting screen appears. • Press the “Mode” switch located on the front panel to set the surgical operation mode and adjust the dial to change the power.

표시 화면	버튼	기능
		Adjust only after taking the scaler out from the holder. – Power increases : Rotate the volume control clockwise (1~10) – Power decreases: Rotate the volume control counterclockwise (10~1)
		Press Mode button to change the operating mode.
		Press the button to control the Handpiece Light On/Off.
		Press the button to set the watering On/Off.

 Warning	• Be careful since you can't check the operating status of the scaler when using the One-Touch function. • You can't change the settings while the handpiece is in operation.
--	--

 Note	• The position of the medical chair cannot be moved while the handpiece is in operation. • To adjust the brightness of the handpiece light, contact our local distributor for service. • One-Touch Function: If you press this button when you use the scaler, it will continue operation (Option)
---	--

3.4 Auxiliary Table

3.4.1 Names of Parts



No.	Name
(a)	Auxiliary light
(b)	Control panel
(c)	Suction source
(d)	Suction stand
(e)	3-way syringe



Warning

- Do not put the load exceeding 2kg on the table. (including accessories)
- Do not use excessive force or give strong impact.



Note

- You can mount the suction source on the auxiliary light.

3.4.2 How to use the auxiliary table

A. Image of the control panel of the auxiliary table



– How to use

Button	Function	Button	Function
	When the button is pressed, the chair rises, and when released, it stops		When the button is pressed, the back of the chair rises, and when released, it stops
	When the button is pressed, the chair goes down, and when released, it stops		When the button is pressed, the back of the chair goes down, and when released, it stops
	Move the chair to the location you want to save and press the button and hold for more than 5 seconds to save the treatment location. When the Button is pressed again, it moves to the saved location		When the button is pressed, the chair moves to the start position
	Press the button to turn the auxiliary light On/Off		When the button is pressed, the dental light turns On / Off
	Pressing the button turns the Suction Pump On / Off		Pressing the button turns the Suction Pump On / Off
	Automatic watering of the spittoon: If press and release the button within 2 seconds, it will switch to automatic watering mode and water will be supplied for the set time		Automatic cup watering: If press and release the button within 2 seconds, it switches to automatic watering mode, and water is supplied by the set amount of water
	Manual watering of the spittoon table: If you press the button and hold for more than 2 seconds, it switches to manual watering mode, and water will be supplied while the button is pressed		Manual Cup Watering: Press the button and hold for more than 2 seconds to switch to manual watering mode, and water will be supplied while the button is pressed

3.4.3 3-Way Syringe How to use

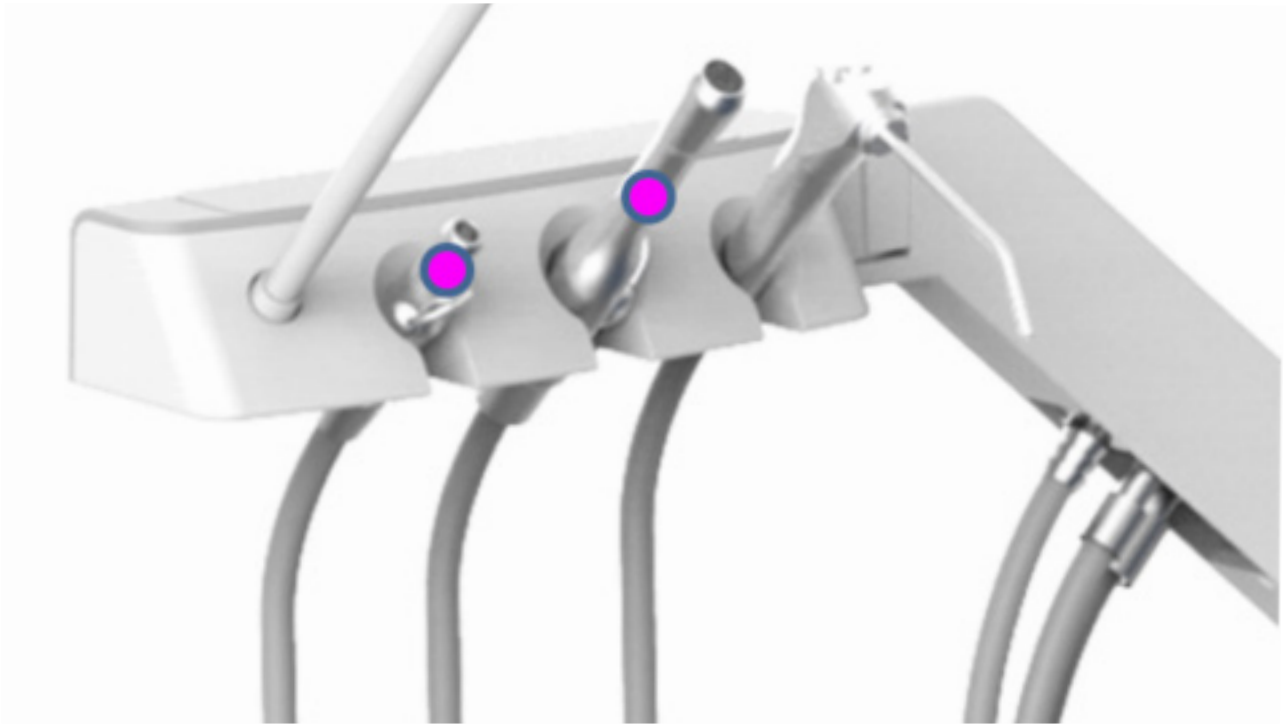


Product image



Button	How to use
	Water is injected while the left button is pressed
	Air blows while the right button is pressed
	Press the left and right buttons at the same time to use water spray

3.4.4 Suction Syringe (Big/Small) How to use



How to use	
1. Remove the suction (big/Small) from the holder to use the suction.	
2. Operate the locking lever up and down to absorb foreign substance.	

Open (absorb)	Close (stop)

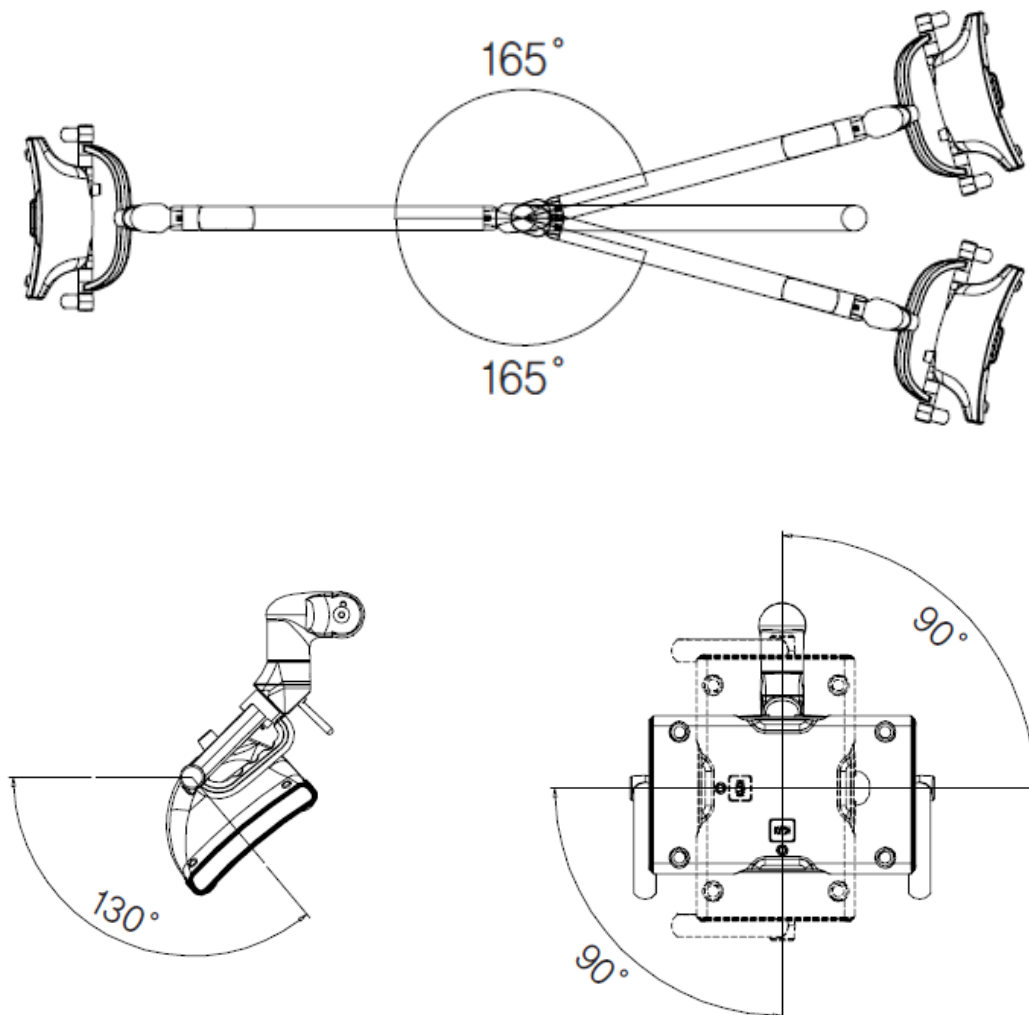
	• When one suction operates, both suctions operate. The suction force of each suction can be used independently using the locking lever.
Note	

3.5 Dental Light

Button	How to use
	Pressing the control button of the doctor table and auxiliary table turns on the dental light.

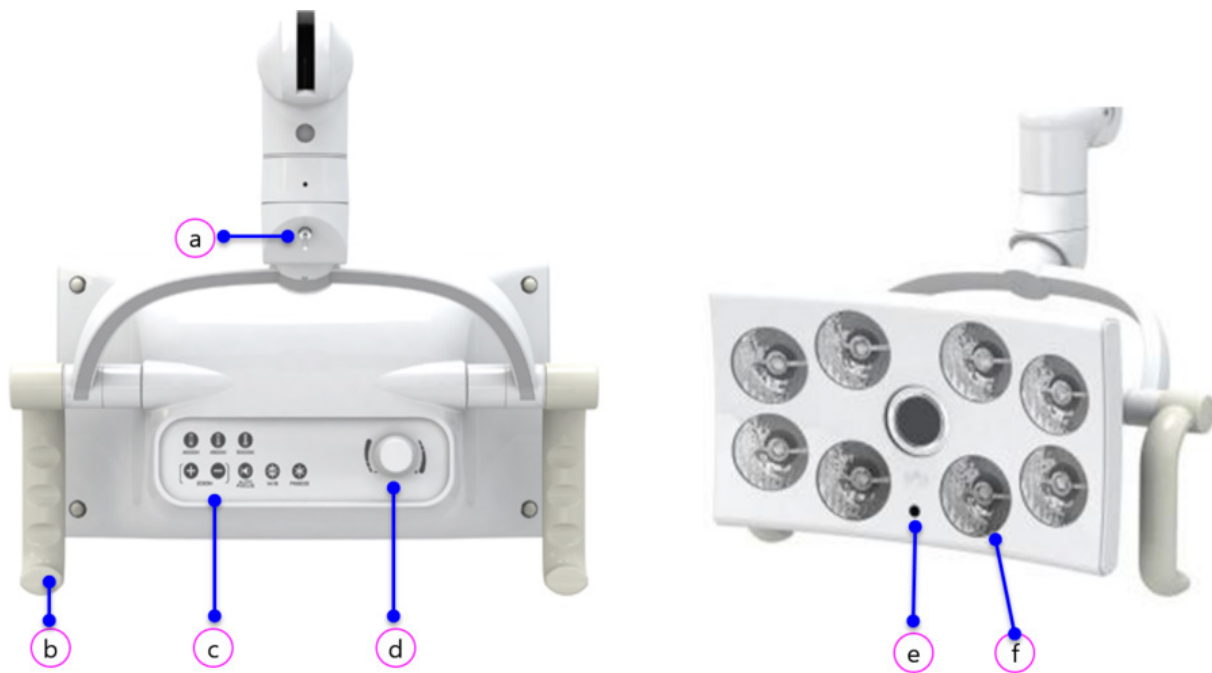
3.5.1 Appearance of C500

You can adjust the brightness by operating the dial on the back of the dental light. The switch on the back of the dental light can be used for power on/off. You can freely adjust the up/down, left/right and rotation angle of the dental light.



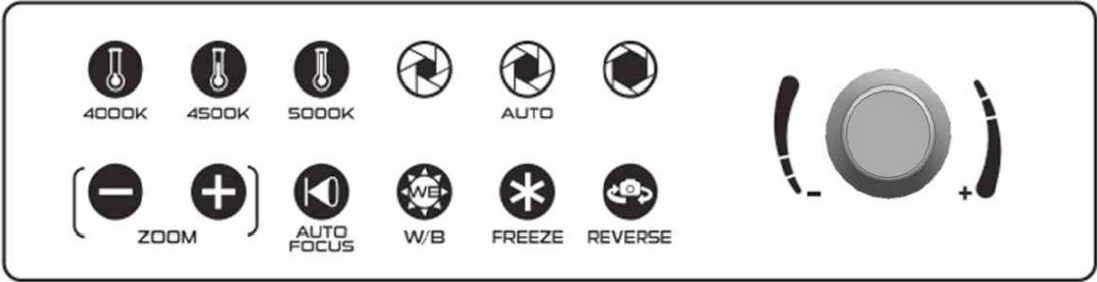
3.5.2 How to use C500 Head Controller

– Key parts



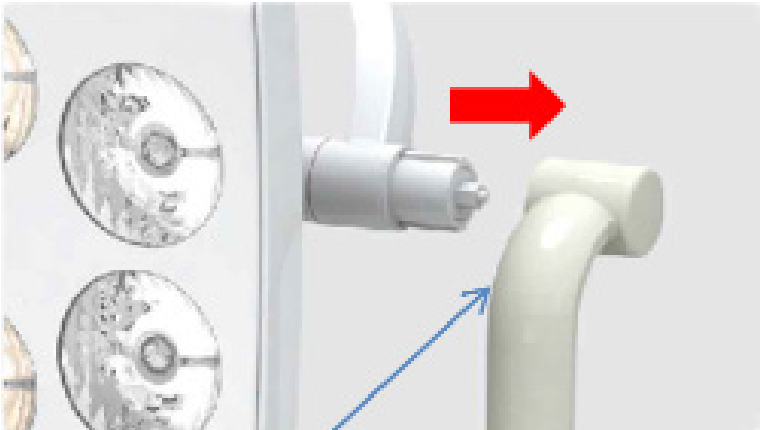
No.	Name	Description
(a)	Power switch	Manual Power ON/OFF switch
(b)	Carrying handle	Positioning knob
(c)	Control panel	Control Camera Options
(d)	Lighting volume	Min & Max light brightness
(e)	Motion sensor	Non-contact light power ON/OFF
(f)	Optical module	Motion Sensor (On/off: sensing distance 2cm)

– Control Panel of Dental Light



Button	Lighting Function
	Rotate the dial clockwise to increase the brightness, and counterclockwise to decrease the brightness.
	Press the relevant button to adjust the color temperature.

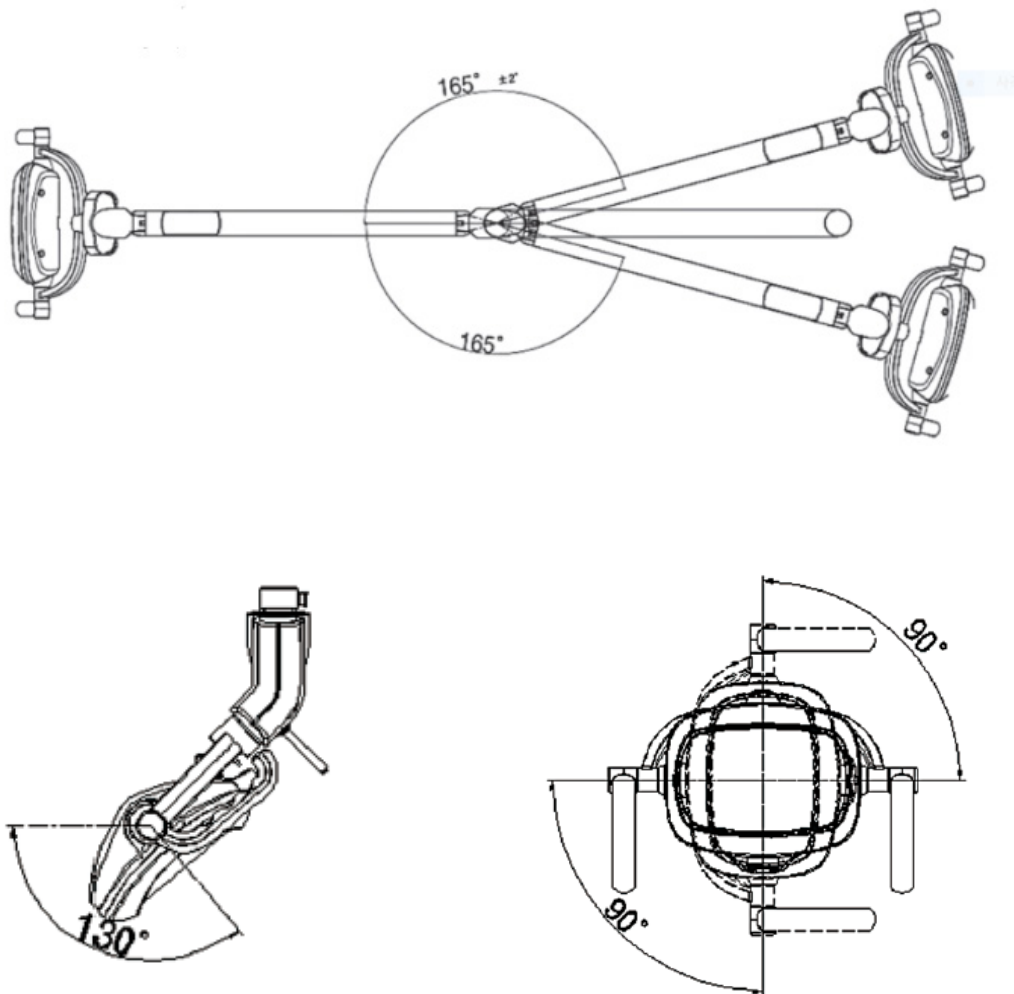
- The maximum brightness is 50,000Lux at the illumination distance of 600mm~800mm.
- When the medical chair moves to the saved position, the dental light turns on automatically.
 1. Start and move the gargle position: Before moving the chair, turn off the dental light
 2. Move to the previous position of the gargle and chair memory 1, 2, 3: After the chair movement is completed, the dental light turns on
- Pull the handle in the direction of the arrow and remove it to sterilize the handle.



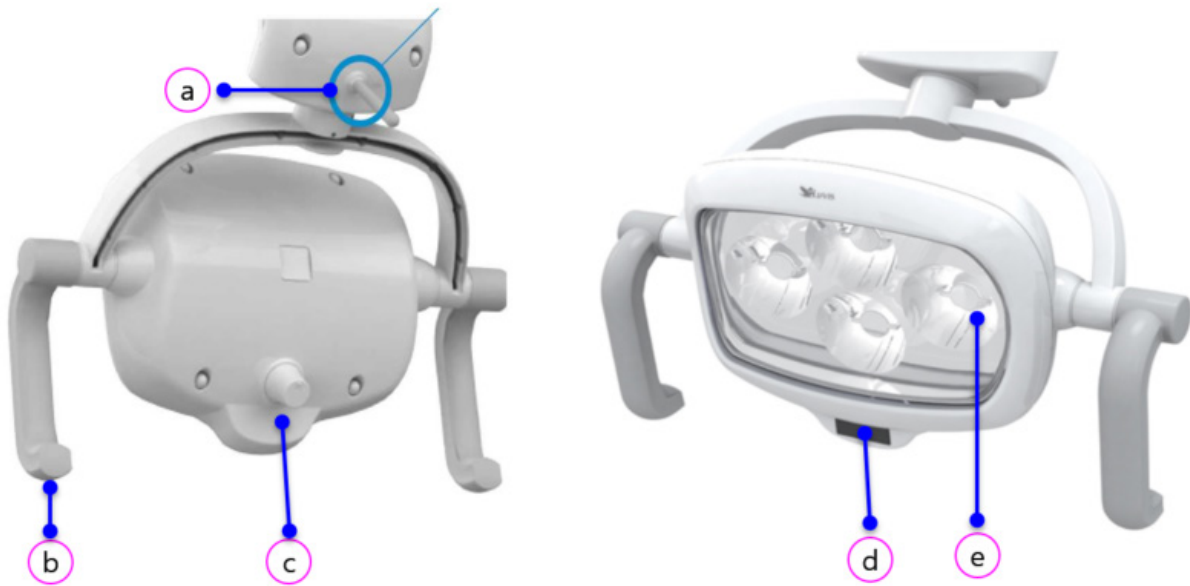
 Note	• High-pressure steam sterilization conditions: up to 134°C, 5 minutes or more, within 20 minutes
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3.5.3 Appearance of C300

The switches on the rear side of the dental light can be used for Power On/Off. You can freely adjust the Up/Down, Left / Right, and rotating angle of the dental light.



– Key Parts of C300



No.	Name	Description
(a)	Power switch	Manual Power ON/OFF switch
(b)	Carrying handle	Positioning knob
(c)	Lighting volume	Minimum and maximum brightness of the lighting.
(d)	Motion sensor	Non-contact light power ON/OFF
(e)	Optical module	Light sensor

- The maximum brightness is 25,000Lux at the illumination distance of 600mm~800mm.
- When the medical chair moves to the saved position, the dental light turns on automatically.
 1. Start and move the gargle position: Before moving the chair, turn off the dental light
 2. Move to the previous position of the gargle and chair memory 1, 2, 3: After the chair movement is completed, the dental light turns on
- Pull the handle in the direction of the arrow and remove it to sterilize the handle.



Note

- High-pressure steam sterilization conditions: up to 134°C, 5 minutes or more, within 20 minutes

3.6 Watering Unit

This is a device for spitting out and rinsing your mouth during and after treatment.

The cup and spittoon can be watered at the same time. (Warm water is supplied depending on the option)



No.	Name	Purpose
(a)	Water feeder	A unit that supplies a certain amount of water to a paper cup
(b)	Sensor	A unit that recognizes the cup and controls the water level
(c)	Cup stand	A unit that holds a paper cup
(d)	Nozzle	A unit where the water to wash the spittoon is injected
(e)	Spittoon	A place where the water rinsed the mouth is spitted.

– Automatic watering

If you place a cup on the spittoon, the unit will automatically stop watering when a certain amount of water is filled. When you remove the water cup, the spittoon will stop the watering automatically.

Button	How to use
	When you press and release the button on the auxiliary table within 2 seconds, it will switch to automatic watering mode and stop watering after watering the set amount.
	When you press and release the button on the auxiliary table within 2 seconds, it will switch to automatic watering mode and stop watering after watering the set amount.

– Manual Watering

Further, the cup and spittoon can be filled with water by operating the manual button on the auxiliary table.

Button	How to use
	If you press and hold the button on the auxiliary table for more than 2 seconds, it will switch to manual watering mode, and watering will proceed while the button is pressed.
	If you press and hold the button on the auxiliary table for more than 2 seconds, it will switch to manual watering mode, and watering will proceed while the button is pressed.



Warning

- Please note that black, transparent, or metal cups are not recognized.
- Please note that cups smaller than 2.5 oz are not recognized.



Note

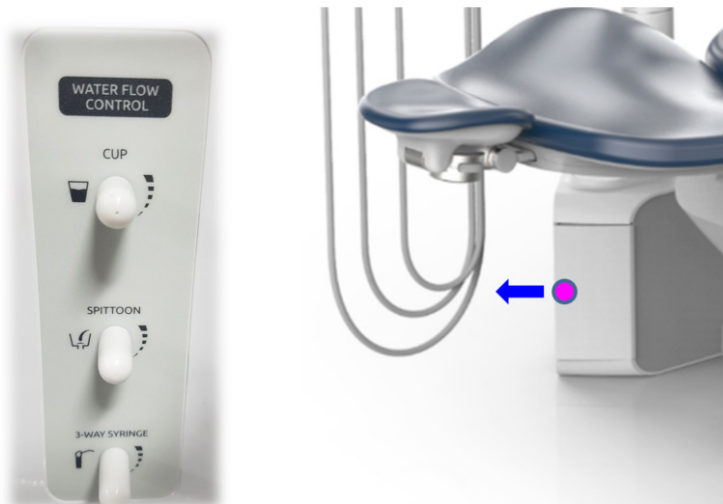
- For automatic cup watering, you can selectively set two modes: The quantity recognition mode and time control mode. To set this function, request the service to the local distributor.
- The spittoon watering can be set as long as the user wants. To set this, request the service to the local distributor.

- How to adjust the water quantity

When you open the front cover of the unit below, there are 3 volumes to control the water quantity.

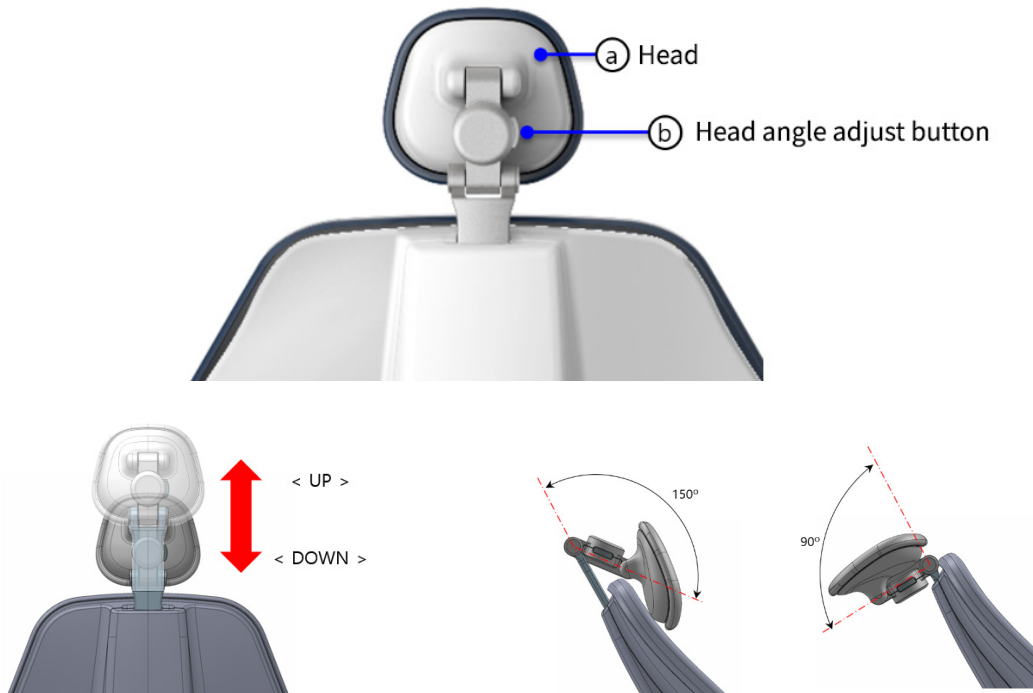
Function	How to use
CUP	1. Water quantity increases : Rotate the switch counterclockwise. 2. Water quantity decreases : Rotate the switch clockwise.
SPITTOON	
3-Way SYRINGE	

Image



3.7 Headrest

- The headrest can adjust the head up/down and angle according to the treatment situation as shown in the picture. 2 Joints can be adjusted, so it is convenient for treating children and the disabled.
- To adjust the headrest, press the head angle adjustment button to adjust the head to the desired position, then release the button to fix the headrest at that position. In addition, according to the height of the patient's upper body, you can hold the entire head and adjust it up/down to fix it in the desired position.



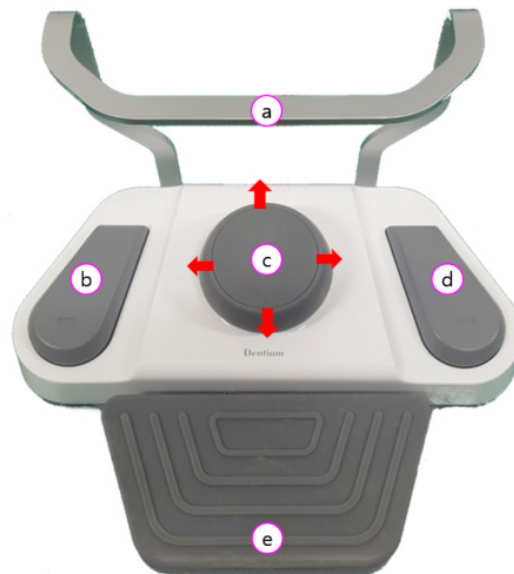
Warning

- When adjusting the head angle by using the Head Button, be careful as excessive angle adjustment may put a strain on the patient.
- When adjusting the head angle while the patient is lying down, be careful as an abrupt movement may occur due to the weight of the patient's head.
- If you press the headrest button while the scaler is running or the foot controller pedal is pressed, the system will not operate for safety.

3.8 Foot Controller

3.8.1 Functional type foot controller

The position of the medical chair can be controlled with the joystick and function buttons, and the handpiece can be operated using the pedal.



No.	Name	Description
①	Footrest	The foot switch is moved using a footrest.
②	Function Button 1	Move to the starting position.
③	Joystick Up	When operating upward, the medical chair rises.
	Joystick Down	When operating downward, the medical chair goes down.
	Joystick Left	When operating to the left, the back of the medical chair does down.
	Joystick Right	When operating to the right, the back of the medical chair rises.
④	Function Button 2	Moves to the location of memory 1.
⑤	Pedal	When you step on the pedal, the handpiece operates, and the speed of the handpiece increases or decreases according to the depth of pressing.

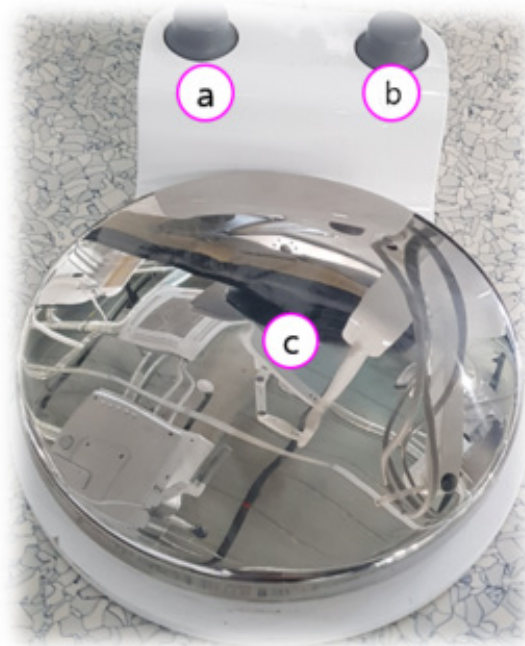


Warning

- If you operate the foot controller while moving the treatment chair, the chair will stop moving.
- If liquid flows into the inside of a foot controller, there is a risk of electric shock due to electric leakage, so be careful.

3.8.2 Disc type Foot Controller

The position of the treatment chair can be controlled with the function button, and the handpiece can be operated using the pedal.



No.	Name	Description
(a)	Function Button1	Moves to the start position.
(b)	Function Button2	Moves to the Memory 1 position.
(c)	Pedal	Stepping on the pedal operates the handpiece.



Warning

- If you operate the foot control while moving the chair, the chair stops moving.
- If liquid flows into the inside of a foot controller, there is a risk of electric shock due to electric leakage, so be careful.



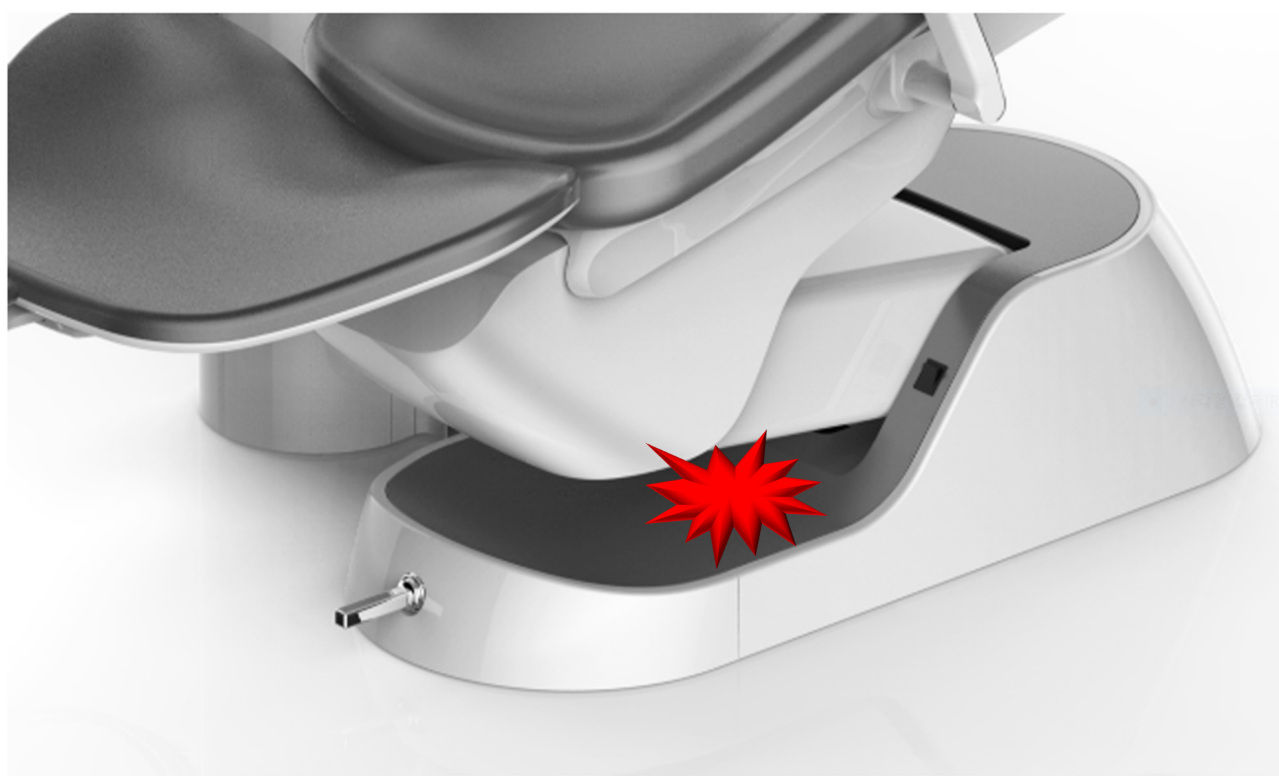
Note

- The function of the foot controller can be set variously in addition to setting the start position and memory 1 position. When changing to another setting, please contact the local distributor.

3.9 Emergency Operation

3.9.1 Guide for Operation

If an obstacle hits the lower part of the treatment chair or an emergency occurs, the chair stops working and the unit chair rises to protect the patient and the system.



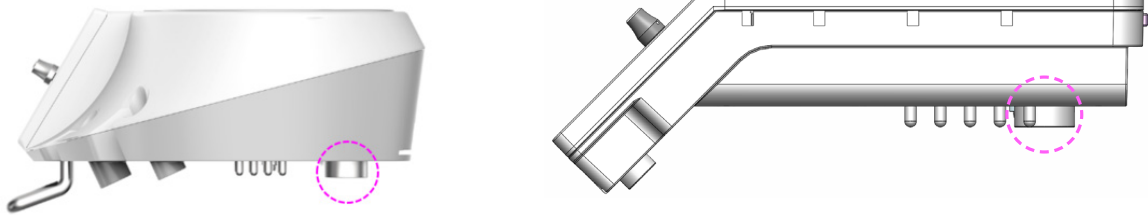
Name	Operating condition
Emergency	When an obstacle is detected in the lower part of the chair, the chair stops working and rises for 2 seconds.

 Warning	• Always be careful not to let the patient, operator, or object enter the lower part of the treatment chair. • Do not arbitrarily operate the safety switch. • If the unit is damaged or does not work, contact our local distributor.
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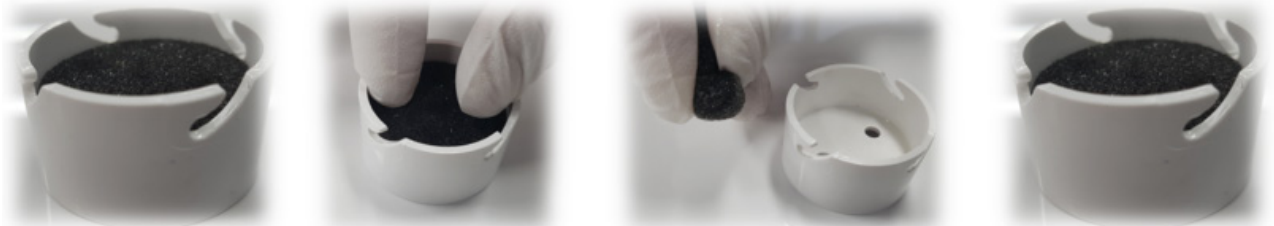
4. Maintenance

4.1 Replacement of Oil Can of Dr. table

- The oil can is located under Dr. table. When using the Air Turbine Handpiece, it collects backflow water and oil. It is located on the floor surface outside Dr. table.



- Check the cleaning cycle every 1 months.
- The oil can is located at the bottom back of Dr. table, and when checking, hold the case and turn counterclockwise to disassemble it.
- After disassembling, remove the sponge inside and press it to separate the oil and reconnect in the reverse order.

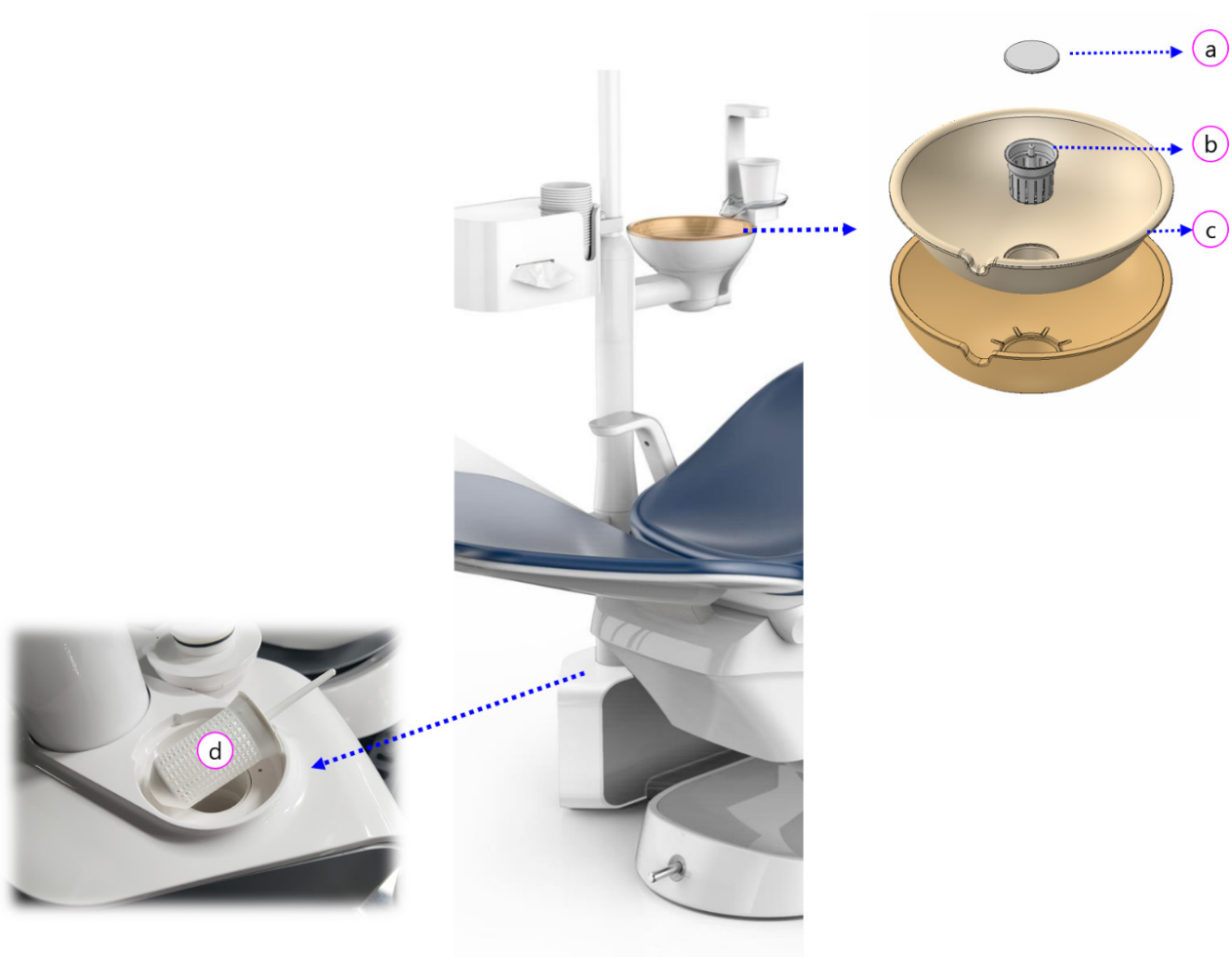


Note

- If regular maintenance is not done, oil may fall to the floor.

4.2 How to clean the unit

The parts that need periodic maintenance in the unit are the spittoon and the suction filter. You can prevent clogging of the drain due to foreign substances by cleaning the filter periodically.

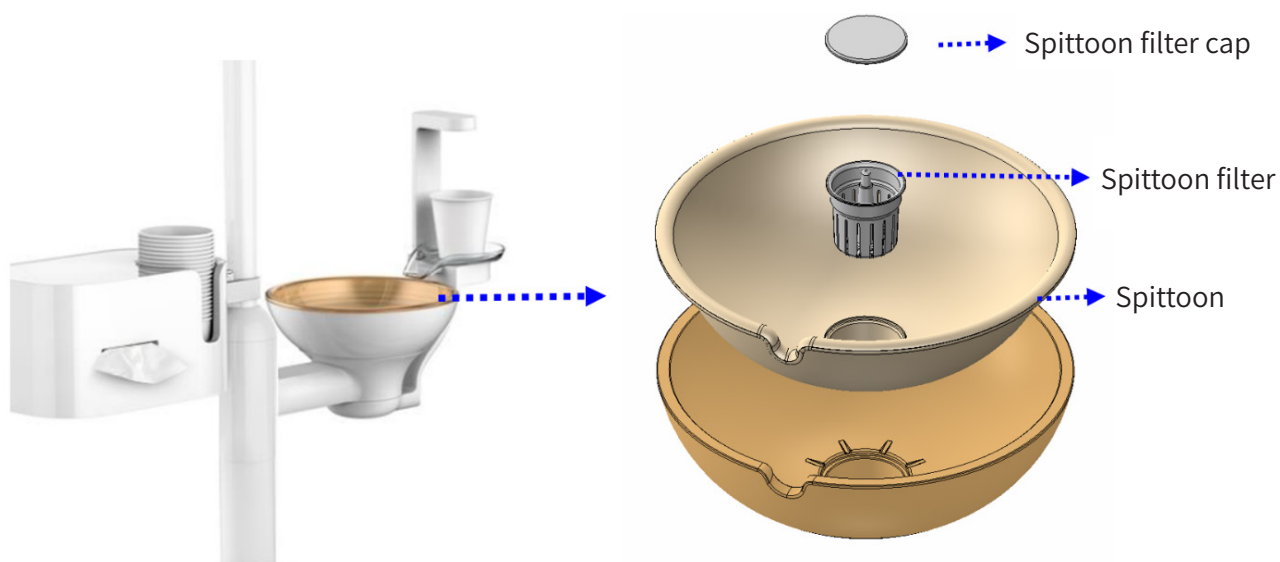


No.	Cleaning area	Cleaning cycle
(a)	Spittoon filter plug	Once a day
(b)	Spittoon filter	Once a day
(c)	Spittoon	Once a day
(d)	Suction filter	Once a day

4.3 Cleaning the spittoon and spittoon filter

How to clean

After removing the cuspidor and lifting the filter cap, take out the filter to remove dirt and clean it with a soft brush.



4.4 Cleaning Suction Filter

Cleaning the suction filter can prevent the suction force from being weak.

How to clean
Open the cap in the direction of the arrow, remove the filter cap, remove dirt from the mesh, and wash it with a soft brush.



 Warning	• If you need to open the unit cover, please contact our local distributor. • There is a risk of equipment failure or electric shock when operating arbitrarily.
 Note	• The spittoon can be sterilized by high pressure steam. • High-pressure steam sterilization conditions: up to 134°C, 5 minutes or more, within 20 minutes

4.5 Sanitation

Sterilize all water tubing of the entire instrument.



Warning

- During sanitation, the system does not operate until the entire sanitation has been completed, so please perform the cleaning with care.



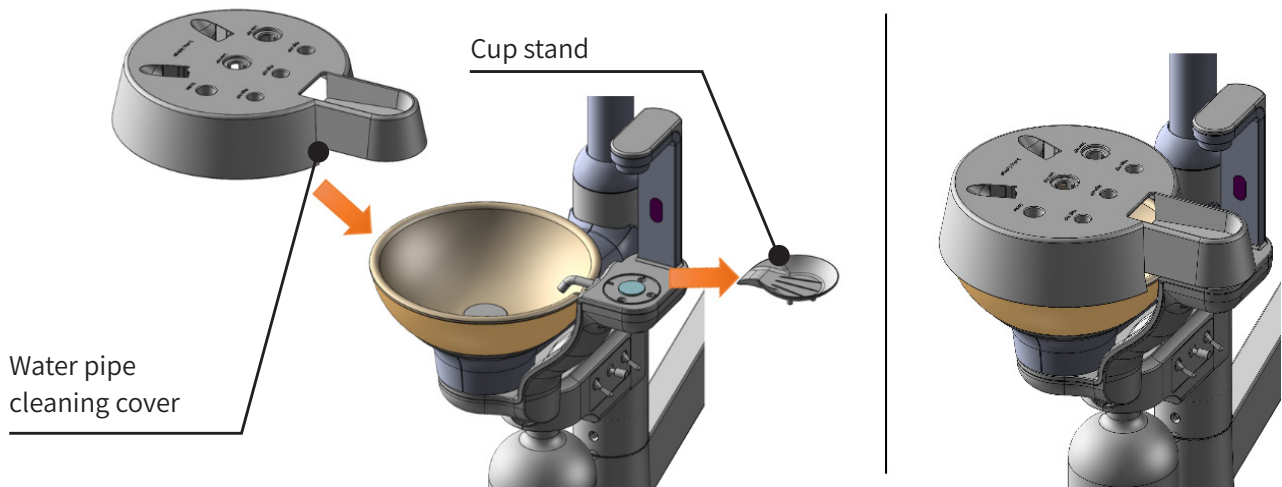
Note

- The sanitation is recommended to be done one a day.

– Preparations before sanitation

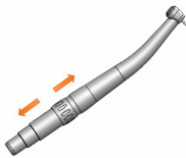
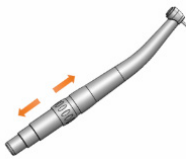
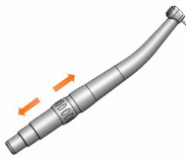
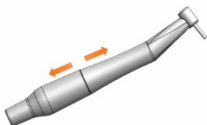
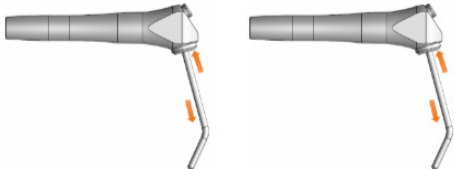
Instrument setting

1. Remove the cup stand of the spittoon and mount the sanitation cover.
2. Remove instruments (except suction) of Dr. table and auxiliary table, and mount the sanitation referring to the following Fig.



Setting method

1. Take out the handpieces one by one from Dr. table and place them on the sanitation cover.
2. Refer to the table below for the location of the handpiece.

No.	Item	Handpiece image
1	High H/P	
2	High H/P	
3	Air Low H/P	
4	Elec Low H/P	
5	Scaler	
6	3-Way Syringe	

– Sanitation Cover and Mounting Image

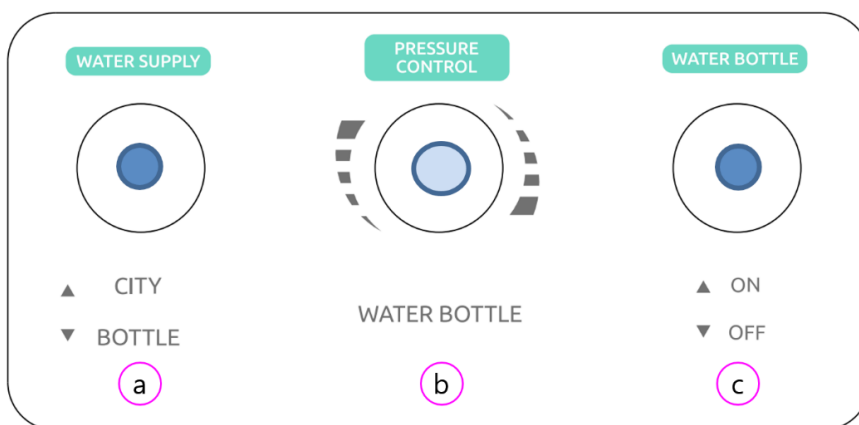


Sanitation cover



Mounting image

– Distilled water + sanitation control module



No.	Name	Description
(a)	WATERING	Select the water to be used (water supply & bottle)
(b)	PRESSURE CONTROL	Watering pressure volume (1.5~2Bar is recommended)
(c)	WATER BOTTLE	Watering bottle pressure ON/OFF switch

– How to use the distilled water + water pipe cleaning control module

No.	Operation mode	Setting		
		WATERING	PRESSURE CON	WATER BOTTLE
1	Use the water supply	ON	0.15~0.2 MPa	OFF
2	Sanitation	OFF		ON
3	Use the bottle watering	ON		ON

– How to set the press control pressure

 Note	• The control pressure is set at 0.2MPa at the factory.
--	---

– Set as 0.15~0.2 by adjusting the volume with the gauge below. (0.2MPa)



– Supplement the disinfectant

Image	Process
	1. Put 60ml of 3% hydrogen peroxide solution and 940ml of distilled water in the sanitary solution container. 2. Insert the sanitary solution bottle into the upper holder of the unit, and then turn it in the direction of the arrow to fix it.
	When using sanitation, set it as shown in the image on the left.

 Warning	• The sanitary solution container may have a negative effect if washed at high temperatures, such as in a dishwasher or washing machine. Wash the water pipe with the water temperature below 40 °C. • If any damage such as cracks, discoloration, etc. is confirmed before filling the bottle, stop using it and replace the bottle with a new one. • When replacing the sanitary solution container, if there is any residual pressure inside, remove the residual pressure before disassembling it. Pressure is removed when the Water Supply switch is turned off.
--	---

 Note	• Finish cleaning the water pipe, remove the sanitary solution container, and clean the water bottle with a mild detergent and bottle brush.
--	--

– Sanitation Process

Button	How to use
	Press and hold the Water Drop button of Dr. Table membrane panel for more than 5 seconds to enter into the sanitation mode.

– Sanitation Process of Rectangular + Round type Dr. Table

Sequence	LCD Image	Process
1		1. This screen appears when entering the sanitation mode. 2. This image shows the state of waiting for disinfectant injection.
2		1. Press the water drop button  on the Dr. table membrane panel to inject the disinfectant solution. 2. Repeat 3 cycles of total 1 minute each, 8 seconds for each 4 handpieces, 8 seconds for 3-way syringes, 10 seconds for cup, and 10 seconds for waiting.
3		1. When the disinfection solution injection is completed, the corresponding screen appears. 2. This shows the standby status after the completion of the disinfection solution injection for the injecting the cleaning solution. 3. Turn off only the Water Bottle switch. 4. Turn off the power in standby mode. Go to work the next day and proceed to step (For efficient cleaning, it is recommended to wait at least 5 hours before cleaning in the water pipe line.)
4		1. Change the setting of the distilled water + sanitation control module as shown on the left.
5		1. After the power is turned off, this screen is displayed when the power is turned on the next day. When cleaning is performed after disinfection without turning off the power, Press the water drop switch  of Dr. table membrane panel to have this screen. (Waiting for cleaning solution to be injected)
6		1. Press the water drop button of Dr. Table membrane panel to inject the cleaning solution. 2. Repeat 3 cycles of total 1 minute each, 8 seconds for each 4 handpieces, 8 seconds for 3-way syringes, 10 seconds for cup, and 10 seconds for waiting.
7		1. When the disinfection solution injection is completed, the corresponding screen appears. 2. This shows the standby status after the cleaning solution injection has been completed.
8		1. Press the water drop button  of Dr. table's membrane panel to finish the sanitation mode and the left screen is displayed.
 Note	• Sanitation cannot be forcibly terminated during disinfection solution injection or when returning to standby status during disinfection solution injection, waiting for cleaning status, or during cleaning. Forced shutdown is possible only when the initial disinfection solution is waiting for injection. • When press the water drop  button, or remove the handpiece during injecting the disinfection and cleaning solution, the mode will be converted to the standby status and the operating time will be initialized. You can restart this procedure from the first by pressing the same button. • After finishing the sanitation, return all instruments to their original positions. • If the water bottle switch is not turned OFF in step 4 of the process after the disinfection solution is injected, the bottle will continue to be injected until the disinfection solution is used up.	

5. Maintenance after Use

- After use, turn off the system.
- Unplug the power cord when not in use for a long time.
- After use, remove foreign substances from the spittoon and wash it with water.
- To clean the inside of the drain or air suction pipe, suck it with clean water sufficiently from the end.
- Periodically clean the spittoon filter and suction filter.
- Disinfect used instruments. If necessary, use a sterilizer. (Please follow each manufacturer's standards for disinfection method)
- Disinfect the handpiece after use and leave it in place (Please follow each manufacturer's standards for disinfection method)
- Clean the outside by spraying cleaning solution for preventing microbial infection or 80% ethyl alcohol on a clean cloth. Do not apply excessive force or use sharp objects.
- Do not allow liquid substances, water, or other foreign substances to penetrate into the inside of the device.
- When cleaning the surfaces of equipment and chairs, gently rub the surfaces with a soft, flat dry towel.



Warning

- Be sure to disconnect the power source before cleaning electronic device accessories.
- Do not fold cables made of electric wires (power, micro motor).
- Do not use compressed air for cleaning.

- Daily check

Classification	Items to check
Chair unit	1. Check that the I/O power switch of the device unused is set at "O". 2. Check if there is any damage to the operation panel switch. 3. Check that the display colors and data are clear.
Micro motor	1. Check if there is any damage to the micro motor cable. 2. Check if there is any damage to the micro motor connector that is bound to the main body. 3. Check if there is any loosening of the micro motor assembly.
Foot-control	1. Check if the power switch is operated properly according to use. 2. Check if the foot-controller pedal moves up and down smoothly when driving. 3. Check if the foot control mode button operation is smooth.

6. Troubleshooting

Error phenomenon	First aid in use
Treatment chair does not move	1. Check that the power cable is connected correctly. 2. Check that the power switch is turned on. 3. Check the operation status of Dr. table + auxiliary table + foot switch. 4. Check if the foot controller pedal is depressed 5. Check if there is any pinching caused by objects under the treatment chair.
Handpiece does not work	1. Check that oil has been injected. (Once a day) 2. Check that the handpiece holder is properly positioned.
Low handpiece does not work	1. Check that the handpiece holder is correctly positioned. 2. Check that the air pressure is correct.
No water comes out of the handpiece	1. Check that the watering switch of the distilled water tank is set to City 2. Check that the water volume control valve at the bottom of Dr. table is open. 3. Check that the handpiece hole is not blocked. – Remove the handpiece and check that it works as a single tube.
Scaler does not work	1. Only water comes out but has no vibration 1.1. Check that the tip is not loosened 1.2. Check that the power control volume works correct 2. Vibration but no water 2.1. Check that the watering switch of the distilled water tank is turned on. 2.2. Check that the water volume control valve at the bottom of Dr. table is open 2.3. Remove the scaler body and check that it operates as a single item.
The water in the spittoon does not drain well	1. Check if the spittoon filter is clogged
No water comes out to the spittoon	1. Check the type of the cup 2. Check that the watering switch of the distilled water tank is set as City
Dental light not lit	1. Check that the power switch of the dental light head is turned on. 2. Check if the dental light is turned off by the non-contact power sensor



Note

- Be sure to inspect the device in a state where there is no moisture or water
- Be sure to turn off the power of the main unit before handling errors in the device.
 - The items that the user can take simple actions are as shown in the table above.
 - If the problem persists, please contact nearest Dentium branch or local distributor.

7. Product Specification and Standard

Item		Description
Appearance (mm)		1851(W) x 1345(D) x 1742(H) Table: 375 (W) x 364(D) x 170(H)
Weight		Approx. 250 kg
Rated power		200~240VAC, 50~60Hz, 1Ph
Power consumption		Max. 0.8 kVA
Protection type and degree		Class 1, Type B
Operating condition		Ambient temp. : 10 – 30°C Relative humidity : 20 – 75% Atmosphere : 800 – 1100hPa Others: There shall be no direct sunlight, flammable, or corrosive gas
Storage conditions		Ambient temp. : -5 – 45°C Relative humidity : 20 – 80% Atmosphere: 800 – 1100hPa Others: There shall be no direct sunlight, flammable, or corrosive gas
Feed water	Inlet water pressure	0.2~ 0.5MPa
	pH	5.8 ~ 8.5
	Hardness	300 mg/L
	Filter size	40 μm
	Inflow	5 ℓ/min
Supply air	Inlet air pressure	0.5 ~ 0.7 MPa
	Filter size	5 μm
	Inflow	50 ℓ/min or more
Environment	Installation slope	0 ~ 3°
	Ambient temperature	10°C ~ 40°C
	Relative Humidity	20~75%
	Working Pressure	70 ~ 106kPa
	Water temperature	25°C or less
	Altitude	Less than 2,000m

8. Labeling

8.1 Labels

Item	Description
Device name	Dental treatment equipment and chairs
Type name	ICT-CH02
Manufacturing item license number	21-4208
Purpose of use	It refers to a medical treatment device and chair used for treatment in the dental field, and a treatment system is also configured.
Weight	250 kg
Performance and how to use	Refer to user manual
Precautions for use	Refer to user manual
Rated protection type and degree of protection	Class 1 device, type B device
Rated power	200~240VAC, 50/60Hz
Power Consumption	up to 0.8 kVA
Maximum allowable weight	150 kg

- ICT-CH02 Label information



Dentium
For Dentists By Dentists

brightAlone

REF ICT-CH02

LOT



Dentium Co.,Ltd. (ICT Branch)

(16229) 76, Changyong-daero 256beon-gil,
yeongtong-gu, Suwon-si, gyeonggi-do,
Republic of Korea

T +82-70-7098-4027, 6909 F +82-31-281-5561

MADE IN KOREA

Dental Chair electric: Oval Type

Input Power 200-240VAC, 50/60Hz, 0.8kVA

Protection Against Electric Shock: Class 1

Duty Cycle(Chair): 60s on, 600s off



EC REP Emergo Europe B.V.
Westervoortsedijk 60, 6827 AT Arnhem,
The Netherlands I081-01LA-03 rev.02



Dentium
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REF ICT-CH02

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Republic of Korea

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MADE IN KOREA

Dental Chair electric: Rectangle Type

Input Power 200-240VAC, 50/60Hz, 0.8kVA

Protection Against Electric Shock: Class 1

Duty Cycle(Chair): 60s on, 600s off



EC REP Emergo Europe B.V.
Westervoortsedijk 60, 6827 AT Arnhem,
The Netherlands I081-01LA-04 rev.02

- ICT-02-FUNC Label information



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I081-02LA-03 rev.02
MADE IN KOREA
REF ICT-01-FUNC
Dentium Co.,Ltd. (ICT Branch)

Dental Foot Controller: FUNC
IP CODE : IPX1
Input Power:3.3VDC

- ICT-02-DISC Label information



Dentium
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I081-02LA-04 rev.02
MADE IN KOREA
REF ICT-01-DISC
Dentium Co.,Ltd. (ICT Branch)

Dental Foot Controller: DISC
IP CODE : IPX1
Input Power:3.3VDC

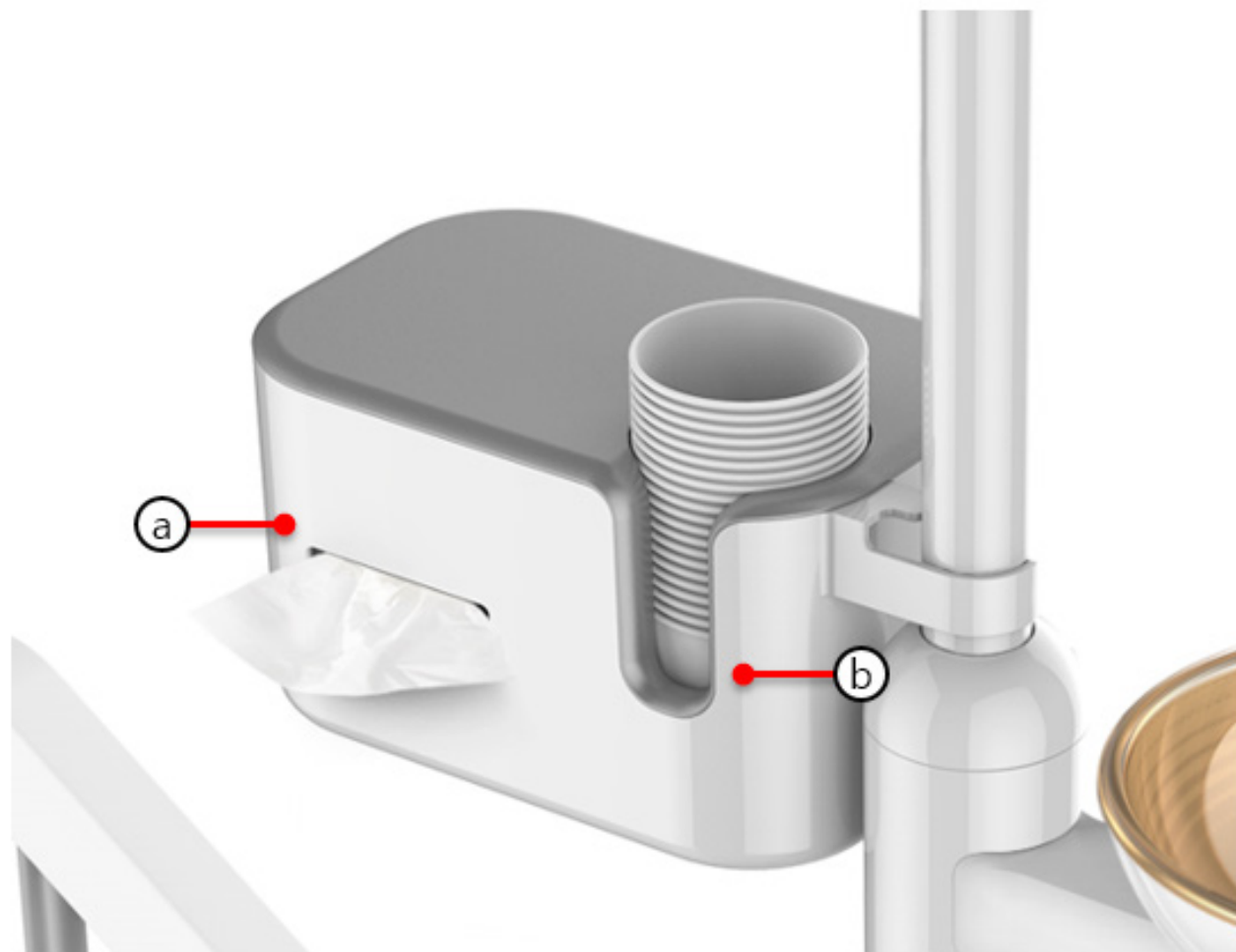
9. Components

9.1 Basic components

Model	Basic components	Qty.	Options
ICT-CH02	High Speed Handpiece (NSK)	2	S-MAX 900L
		option	S-MAX M800KL (Kavo type)
		option	S-MAX M900KL (Kavo type)
	Air Low Speed Handpiece	1	FX205M4, FX25, FX65 (NSK)
	Scaler(Cavitron)	1	CompactS (Dmetec)
		option	VA170S5 (NSK)
	ElecLow Motor	option	NLXnano SET(M25L, M65) (NSK)
	3-way syringe	2	
	Saliva ejector	1	
	Vacuum syringe	1	
	Doctor's stool	1	
	Dental light	1	C-300
	Chart Bracket	1	
	Tissue & Cup Holder	1	

9.1.1 Tissue & Cup Holder

These are chair-only accessories that are mounted on the chair to store tissues and cups for the convenience of patients during treatment.



No.	Name	Function
Ⓐ	Tissue Holder	The part that holds tissues
Ⓑ	Cup Holder	The part that holds a cup



Warning

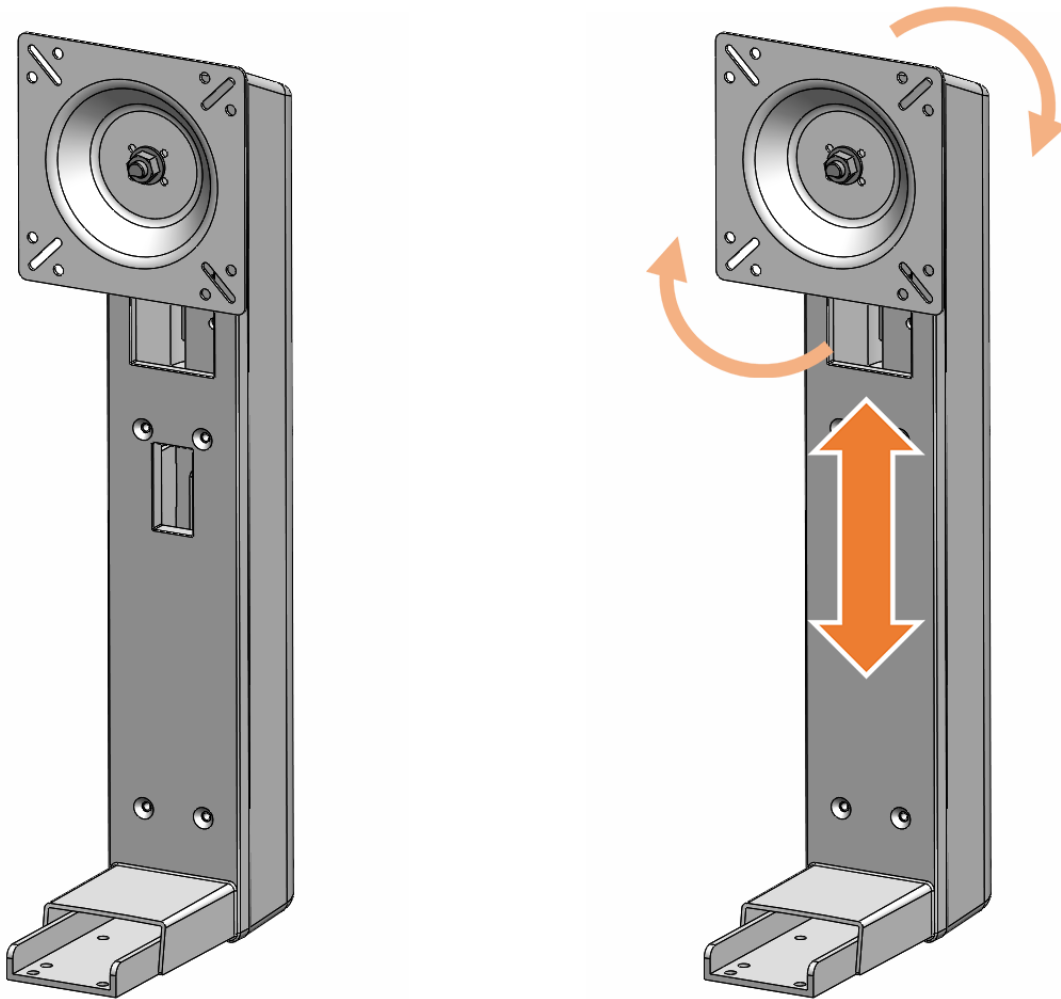
- The holder may be damage if the load exceeding 1.5kg is applied to the holder.

9.2 Optional components

Option	Option components	Note
Seat Color	Indigo Navy	
	Ocean Blue	
	Dark Cyan	
	Mocha Brown	
High Speed Handpiece	S Max M600L	
	S Max M500L	
	Ti - Max Z800L	
	Ti - Max Z900L	
Elec. Low Speed Handpiece	NXL nano + M65 + M25L	
Scaler	Varios 170	
	Compact S	
Option	Dental light	
Option components	C-500	
Foot controller	Disc Type	
	Func Type	
Monitor Arm	-	
Stool	Assist Stool	

9.2.1 Monitor Arm

It supports the monitor and allows the user to fix the monitor in various positions desired by the user.



Note

- The applicable monitor size is from 17 inch to 24 inch.
- When you want to change the monitor or adjust the height of the monitor arm, please contact the nearest Dentium branch or local distributor.

10. Appendix

10.1 Precautions for disposal of the system

- When disposing electric machines and accessories, they must be disposed of in accordance with the guidelines of the local laws and regulations.



- This mark means that electrical and electronic equipment waste cannot be disposed of as unsorted municipal waste must be collected separately.
- Before disposing of products or parts, contact the nearest Dentium sales office or local distributor to ensure that they are disposed of in a safe and appropriate manner.
- This equipment is basically designed to be disposed of without environmental pollution.

- Details

Part name	Raw material	Whether to recycle or not	Hazardous material
Frame	Aluminum + Steel	◆	
Cover	Plastic	◆	
Sheet	Memory foam	◆	
Control board	Electronic components + PC	◆	
Cable	Copper + Steel + Oil	◆	
Packaging	Cardboard + foam	◆	

- This dental treatment device and chair Dentium ICT-CH02 is designed according to medical device regulations and manufactured and tested according to strict quality control system. Dentium Co., Ltd warrants that this warranty complies with the international warranty provisions of consumer protection laws.

10.2 Electronic Appliance Compatible Information

- This device is manufactured to operate in the electromagnetic environment described below.
- The customer or user must ensure that this device is being used in the environment described below.

Emission test	Standard	Electromagnetic Environment Guide
HF emissions according to CISPR 11	Group 1	The radiation properties of ICT-CH02 make it suitable for use in industrial areas and hospitals (CISPR 11 Class A). When used in a residential environment (where CISPR 11 Class B is normally required), this equipment may not provide adequate protection for radio frequency communication services. Users may be required to take mitigation measures, such as relocating or reorienting equipment.
Emissions according to CISPR 11	Class B Class A	ICT-CH02 is suitable for use in all establishments other than domestic use and can be used in homes directly connected to the public low-voltage power supply network. Warning This equipment should only be used by medical professionals. This equipment/ system may cause radio interference and may interfere with the operation of nearby equipment. It may be necessary to take mitigation measures such as redirecting or relocating ICT-CH02 or shielding its location.
Harmonics according to IEC61000-3-2		
Voltage fluctuations/ flicker according to IEC 61000-3-3	Compliance	

- Radio interference resistance
 - This device is designed to operate in the electromagnetic environment described below.
 - The customer or user of this device must ensure that the device is being used in such an environment.

Radio interference resistance test	IEC60601-1-2-1-2 test level	Standard Compliance level	Electromagnetic Environment Guidelines
Electrostatic discharge (ESD) according to IEC 61000-4-2	8 kV direct contact discharge 15 kV air gap discharge	8 kV direct contact discharge 15 kV air gap discharge	Floors must be made with wood, cement or ceramic tiles. For floors made of synthetic materials, the relative humidity must be at least 30%
Radiated RF electromagnetic field immunity according to IEC 61000-4-3	3V/m 80MHz-2.7GHz 80% AM at 1kHz	3V/m 80MHz-2.7GHz 80% AM at 1kHz	ICT-CH02 is suitable for use in professional medical environments.
Transient fast electrical disturbance/burst according to IEC 61000-4-4	± 2kV power line ± 1kV I/O line 100 kHz repetition frequency	± 2kV power line ± 1kV I/O line 100 kHz repetition frequency	The quality of the supply voltage must be suitable for a typical business or hospital environment.
Surge voltage according to IEC 61000-4-5	±1 kV line to line ±2Kv line and ground	±1 kV line to line ±2Kv line and ground	The quality of the supply voltage must be suitable for a typical business or hospital environment.

Radio interference resistance test	IEC60601-1-2-1-2 test level	Standard Compliance level	Electromagnetic Environment Guidelines
Immunity to conducted disturbances induced by RF fields according to IEC 61000-4-6	3V 0.1580MHz 80% AM at 6V 1kHz in ISM band between 0.15~80MHz Power supply line & I/O line	3V 0.1580MHz 80% AM at 6V 1kHz in ISM band between 0.15~80MHz Power supply line & I/O line	The strength of the RF field in the frequency range higher than 150 kHz to 80 MHz, the strength of the RF field is less than 3V. The quality of the supply voltage must be suitable for a typical business or hospital environment.
Drops, interruptions and fluctuations in supply voltage according to IEC 61000-4-11	0 % UT: 0.5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0 % UT; 1 cycle and 70 % UT; 25/30 Cycles Single phase: at 0°, 0 % UT; 250/300 cycle	0 % UT: 0.5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0 % UT; 1 cycle And 70 % UT; 25/30 Cycles Single phase: at 0°, 0 % UT; 250/300 cycle	The quality of the supply voltage must be suitable for a typical business or hospital environment. It is recommended that the appliance have an uninterruptible power supply or battery to keep the appliance operating in the event of a power outage.
Supply frequency according to IEC 61000-4-8	3 A/m	3 A/m	If LCD display distortion occurs, it may be necessary to place the Model ICT-CH02 LCD display away from sources of power frequency magnetic fields or to install a magnetic shield. The power frequency magnetic field must be measured low enough at the intended installation location.
Note: UT is the mains AC voltage before using the test level.			

Electromagnetic Interference Resistance Test	IEC 60601-1-2 Test level	Standard Compliance level	Electromagnetic environment guidance
Induced HF disturbance /IEC 61000-4-6 Induced HF disturbance/ IEC 61000-4-3	3Veff 150 kHz ~ 80 MHz 3V/m 80MHz ~ 800MHz 3V/m 800MHz ~ 2,5GHz	3Veff 3Veff 3Veff	The use of portable and mobile wireless devices, including cables, should not be made closer to the device than the recommended protective distance. The recommended guard distance can be calculated using the appropriate equation for the transmit frequency. The recommended protection distance; $d = [1, 2] P$ For 80 MHz to 800 MHz; $d = [2, 3] P$ For 800MHz to 2.5GHz; P is the rated power (unit: W) of the transmitter according to the transmitter manufacturer's data, and d is the recommended protection distance (unit: m). The magnetic field strength of a stationary radio transmitter depends on the site survey, but must be less than the b compliance level at all frequencies. Disturbance may occur in the environment of equipment marked with the following symbol. 

- Protection distance
 - Recommended protective distance between portable and mobile HF communication devices and this device
 - This device is intended to operate in an electromagnetic environment in which radiated HF disturbances are controlled.
 - RF communication equipment must be at least 30cm away from any part of ICT-CH02, including cables designated by Dentium.

10.3 Manufacturer

Type name	Dental treatment equipment & chair
Model name	ICT-CH02
Manufacturer	Dentium Co., Ltd(ICT Branch)
Address	(16229) 76, Changnyong-daero 256beon-gil, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea
Tel/Fax	Tel 070-7098-4027, 6909 Fax 031-281-5561

10.4 Warranty and Service

- Dentium Co., Ltd warrants to the purchaser that the ICT-CH02 and accessories are free from defects in material and workmanship under normal use and service for a specified period of two years from the date of purchase.
- The product warranty is conditional on the correct use of the product by the purchaser. During the applicable warranty period, Dentium Co., Ltd will repair or replace defective parts of the product free of charge to the buyer. However, if Dentium Co., Ltd determines that the product is not considered to be subject to warranty, the buyer will be responsible for paying all parts, shipping and labor costs required for repair.
- Upon purchase, please fill out the following warranty form and send it to the fax number below. (031-281-5561)
- When requesting the warranty, the customer shall present this warranty to the manufacturer.
- The service life of this device is 10 years.
- The following cases are not eligible for free warranty benefits.
 - 1) Defect or damage caused by accident, misuse, abnormal use, abnormal condition, improper storage due to the user's negligence.
 - 2) Damage or defects caused by external causes such as collision with objects, fire, flood, sand, earth, storm, lightning, earthquake, weather conditions.
 - 3) Defect or damage due to improper testing, operation, maintenance, installation, service, or adjustment not provided or approved by Dentium
 - 4) Defects or damage caused by ignoring warning signs in the user manual (instructions for use)

Device name	Dental Treatment Equipment & Chair	Manufacturing	
Model name			
Warranty period	From ~ to ~ (2 years) The warranty period of the products whose sales date is not recorded on the warranty is 2 years from the date of shipment from the factory.		

Product name	ICT-CH02	Customer information	
Purchase date		Dental Clinic	
Manufacturing date		Address	
Serial No.			
Warranty period	2 years	Contact	

User manual Languages

BG	ES	CS	DA	DE	ET	EL	EN
							●
FR	GA	HR	IT	LV	LT	HU	MT
NL	PL	PT	RO	SK	SL	FI	KR

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Dentium

Dentium Co., Ltd(ICT Branch)

I081-01MU-02 rev.03 (2023.05)

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EC REP

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