Evogue Dental Unit

OPERATING INSTRUCTIONS

IMPORTANT

Thank you for purchasing TAKARA BELMONT product.

- **Please read through this instruction manual carefully before using the product to ensure proper use. Failure to read the instruction manual before use may lead to an accident.**
- **After the installation has been completed, keep this instruction manual near the product for future maintenance. Refer to this manual when necessary.**
- **Should you have any questions about this manual or the product, please contact us. If the manual becomes unreadable or is lost, please request a new manual through our dealer.**
- **Installation should be conducted by authorized personnel only. Follow the instructions in the installation manual.**

Belmont®

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Indications for Use

Evogue Dental Unit series are intended for the Dentists, Hygienists, and Dental assistants for traditional and normal patient treatment procedures in the dental operatory.

Environmental Requirement

For Operation :

Ambient Temperature 32°F ～ 104°F (0°C ～ 40°C)
Humidity 10% ～ 95%
Atmospheric Pressure 10 psi ～ 15.4 psi (700 hPa ～ 1060 hPa)

For Transportation / Storage :

Ambient Temperature -4°F ～ 158°F (-20°C～ 70°C)
Humidity 10% ～ 95%
Atmospheric Pressure 10 psi ～ 15.4 psi (700 hPa ～ 1060 hPa)

Equipment that is not suitable for use in air, flammable anesthetic gas, oxygen or nitrous oxide.

Compatibility of Handpieces

This unit should be combined with the handpieces described in the list of compatible handpieces (Page 51).

Compatibility of Chair

This unit should be combined with the chair described in the list of compatible chairs (Page 51).

Compatibility of Dental Light

This unit should be combined with the dental light described in the list of compatible dental lights (Page 51).

Compatibility of Cabinet

This unit should be combined with the cabinet described in the list of compatible cabinets (Page 51).

Important Notes

- In case of the troubles, please contact a Takara Belmont or your dealers.
- Do not disassemble or attempt to repair.
- Installation and repair should be conducted by a qualified our service technician only.
- No modification is allowed except handpiece installation by an authorized dealer technician.
- Attempts at disassembly, repair or modifications may lead to abnormal operation and accidents.

In case of disposal of equipment

In case of disposal of equipment or of components dismounted from the unit, take full infection preventing measures, and carry out appropriate steps in accordance with the legal regulations at that time.

Disposal of residue material

Please request a special contractor when you dispose amalgam.

SYMBOLS

In this manual, on the labels, on the control panel of Evogue Dental Unit, following symbols are used. Confirm the meaning of each symbol.

	Protective earth (ground)		Alternating current		ON (power)		OFF (power)
	To raise the chair		To lower the chair		To recline the backrest		To raise the backrest
0	Chair auto return	1	Chair preset 1	2	Chair preset 2	3	Chair preset 3
	Chair manual control		Bowl flush		Cupfiller		Service outlet (water)
	Service outlet (air)		Scaler power control		Handpiece Flush Out		Type B Applied Parts
	General warning sign		Caution		Non-ionizing radiation	Rx Only	Rx only symbol
	Manufacturer		Date of manufacture				

SAFETY PRECAUTIONS

- Before use, read the “Safety precautions” carefully to ensure proper use.
- The following information is designed to ensure safe use of this product and to prevent injury and damage to you and others. The precautions contained here are classified depending on the severity and degree of imminence of possible injury or damage resulting from improper use. Be sure to follow all the information which is important for safety.

Classification of precautions	Severity and degree of imminence of possible injury or damage
⚠ **WARNING**	This symbol indicates that “ignorance of these precautions may lead to severe injury or even death as a result of improper use.”
⚠ **CAUTION**	This symbol indicates that “ignorance of these precautions may lead to mild or moderate physical injury or damage to property as a result of improper use.”
NOTICE	This symbol indicates that “it is recommended to follow these precautions for safety.”

⚠ WARNING

1. Be sure to turn off breakers for equipment in the clinic when this product will not be used for a long period of time.

Be sure to turn off breakers for equipment in the clinic when this product will not be used for a long period of time (following the completion of work, during the suspension of business, etc.). Insulation degradation may cause electrical fire.

2. Be sure to turn off the main switch upon completion of work or during work breaks

Be sure to turn off the main switch upon completion of work or during work breaks. This prevents incorrect operation due to accidental contact and associated hazards.

3. Never disassemble, repair or modify this product

Individuals other than certified repair technicians should not disassemble or attempt to repair and modify this product. This could lead to an accident, failure, electric shock or fire.

4. Be sure to establish a grounding connection

Be sure to establish a proper grounding connection. (Refer to a vendor for grounding connection.) Failure or electric leakage may lead to electric shock.

5. Use with caution in the presence of electromagnetic interference waves

Do not place this product around equipment generating electromagnetic waves (including communications equipment, elevators, etc.) as incorrect operation of this product may occur in the presence of electromagnetic interference waves. elevators, etc.) as incorrect operation of this product may occur in the presence of electromagnetic interference waves.

6. Do not place an undue load on the arm

Do not get on or place an undue load on the arm of this unit or dental chair armrest. This could cause the unit to topple or other accidents.

7. Immediately wipe off any water spills or leakage on the floor

Immediately wipe off any water spills or leakage on the floor. Decreased strength of the floor may lead to physical injury including fall, or property damage.

8. Be sure to turn off the main switch when electrocautery is in use

Be sure to turn off the main switch when electrocautery is in use, because noise may cause incorrect operation of this product.

SAFETY PRECAUTIONS

⚠ WARNING

9. Use with caution on patients with a cardiac pacemaker

Use this product with extreme caution on patients with a cardiac pacemaker. In the case of any abnormalities in patients during use, immediately turn off this product and discontinue use.

10. Do not place objects weighing 4.40lbs or more on the Doctor's table

Do not place objects weighing 4.40 pounds or more on the Doctor's table. This could cause damage to the Doctor's table, defective function or accidents.

11. When water leaking from the unit

In the case of water leaking from the unit, discontinue use, turn off the water main valve, main switch, breaker and contact the dealer or our company.

12. Ensure the maintenance of this product

Failure to maintain this product may lead to physical injury or property damage. Refer to the section of Maintenance and Inspection.

13. Use the turbine with a water check valve

Use the turbine with a water check valve. Contact the dealer or our company when a turbine without a water check valve will be used.

14. California Proposition 65

Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

SAFETY PRECAUTIONS

⚠ CAUTION

1. Only experienced personnel should use this product

Only dentists or other dental professionals should use this product.

2. Confirm safety before use

Before use, confirm that the parts are correctly and safely operating and that there are no obstacles around this product.

3. Pay attention to the patient during operation

Confirm that the patient is surely seated in the proper position.
Keep your eyes on patients (especially, children) so that mischief or inadvertent operation of equipment will not lead to unexpected accidents.

4. Pay attention during automatic operation of the chair

Pay attention to surroundings during automatic operation of the chair. Damage to the backrest, stool, Doctor's table may occur.

5. Pay attention during movement of the Doctor's table

Pay attention to surroundings when you move the Doctor's table. Injury by the tips of handpieces etc. may occur. Be sure to move the Doctor's table by holding the handle of the unit.

6. Pay attention during headrest operation

Do not allow hands, fingers or hair to become entangled in the moving parts of the headrest during operation.

7. Pay attention when you move a stool

Pay attention to surroundings when you move a stool so as not to hit the Doctor's table or Foot controller. This could cause malfunction or damage to the unit.

8. Discontinue use if you feel that "something is wrong"

Always be careful to inspect this product for looseness, rattling, tilting, wobbling, sounds, temperature, odors, etc. Immediately discontinue use at the first feeling that "something is wrong."

9. Do not smack or rub this product

Do not smack or rub this product forcefully. This could cause damage to covers or defective function.

10. Practice of flush out

Practice the flush out of water retained in the unit before the start of clinical practice at the beginning of each work day to maintain the quality of water for dental treatment and ensure a steady supply of water to handpieces. Refer to the procedure for flush out.

11. Do not place anything hot on the Doctor's table

Do not place anything hot on the Doctor's table. This could cause deformation or discoloration.

12. Put a cover on the scaler tip

After use, be sure to put the dedicated tip cover (if a cover comes with the unit) on the scaler in the holder. If the cover is not used, injury from the scaler tip may occur.

13. Turn off the main switch upon completion of work

Be sure to turn off the main switch at the end of each work day to prevent incorrect operation due to accidental contact, water leakage and electric accidents.

SAFETY PRECAUTIONS

⚠ CAUTION

14. Set the air pressure for the water tank at 29 psi or less

Adjust the air supply pressure for the water tank to 29 psi or less. An excessively high pressure may cause damage to the water tank.

15. Read the documents accompanying the various pieces of equipment

Before use, be sure to carefully read the package inserts and Instruction Manuals accompanying the various pieces of equipment (including optional articles) to ensure proper use.

16. Be sure to operate switches with your hands

Be sure to operate switches with your hands, except the foot controller, which is operated with your foot. Operation with body parts other than hands may cause damage or incorrect operation.

17. Wash the filter in the solid collector with running water

Detach and wash the filter in the solid collector with running water. The filter may break if wash it with brushes.

18. Immediately wipe off drug solution when it comes into contact with this unit

Should drug solution or water comes into contact with this unit, immediately wipe it off with a dry soft towel, etc. Otherwise defective function or electric leakage may cause as well as spotting or rusting.

19. When you are working with a handpiece, do not pick up another handpiece

When you are working with a handpiece, do not pick up another handpiece. Another handpiece may rotate and cause an injury. Do not pick up two handpieces at the same time.

20. Observe the hose

Do not step on the hose (foot controller hose, vacuum hose, saliva ejector hose and handpiece hose). Failure to heed this warning may result in damage to the hose, as well as people tripping over.

21. Do not use water other than purified water, distilled water or pure water for the water tank

The water tank is intended only for use with purified water, distilled water and pure water. Do not use mouthwash or electrolyzed water, such as ConCool or povidone iodine, as they may cause clogged tubing or affect internal valves and equipment.

22. Precautions for right/left handed conversion

Make sure read through page 34 for instructions before perform with right and left handed conversion. This could cause physical injury or property damage.

23. Precautions for wipe-off the surface of Dr. Table or Assistant Holder

Do not spray liquids directly onto the surface of the table or holder sections.

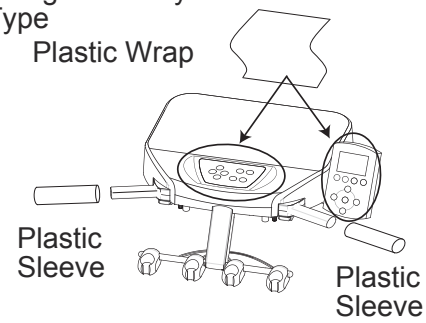
SAFETY PRECAUTIONS

⚠ CAUTION

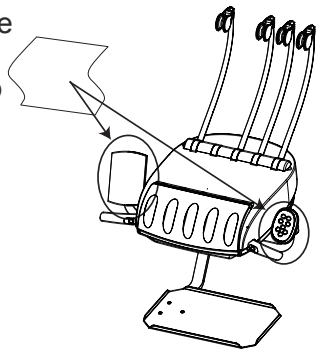
24. CAUTION If you use barriers, always replace the barrier film after each patient

We recommends barrier protection for all applicable touch and transfer surfaces. Touch surfaces are areas that come into contact with hands and become potential cross contamination points during dental procedures. CAUTION If you use barriers, always replace the barrier film after each patient.

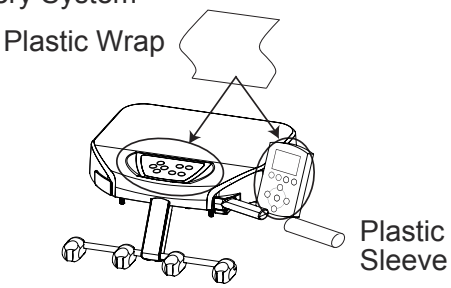
PMU / Swing Mount System
Holder Type



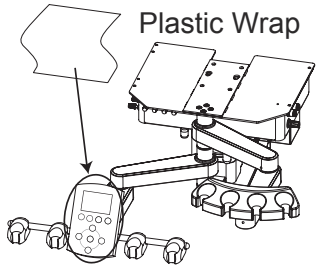
PMU / Swing
Continental Type



Side Delivery System



Rear Delivery System



NOTICE

1. Check operation of the compressor

With no air supplied, this product does not operate even after turning on the main switch. Turn on the power of the compressor before operating this product.

2. Handling of equipment in the case of a power failure

Put the handpiece in the holder and turn off the main switch if equipment stops working during use due to a power failure or other reasons.

3. Precautions for the water incoming to the unit

Tap water shall be provided to the main water line in the junction box. Other type of water such as water through a sterilizer of water system etc. may cause malfunction of the unit which is out of warranty.

4. Be careful not to drop the handpiece

Be careful not to drop the handpiece otherwise it may be broken or deformed.

5. Troubleshooting and contact information

In the case of any problems, discontinue use, turn off the main switch and contact the dealer or our company. During the repair work, the power plug should be disconnected. Do not place any objects around the junction box to prevent interference to the operation.

6. Be careful to connect the insert to the water coupler

Please be careful when connecting the insert DCI #0014 to the water coupler. Water comes out at the exact moment of inserting.

SAFETY PRECAUTIONS

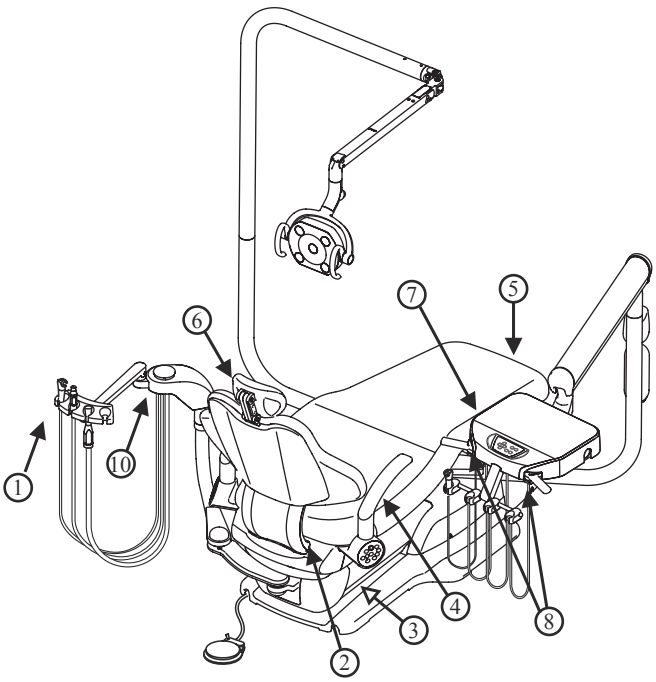
■ Caution Points During Operation of the Product

Description of Symbol Marks

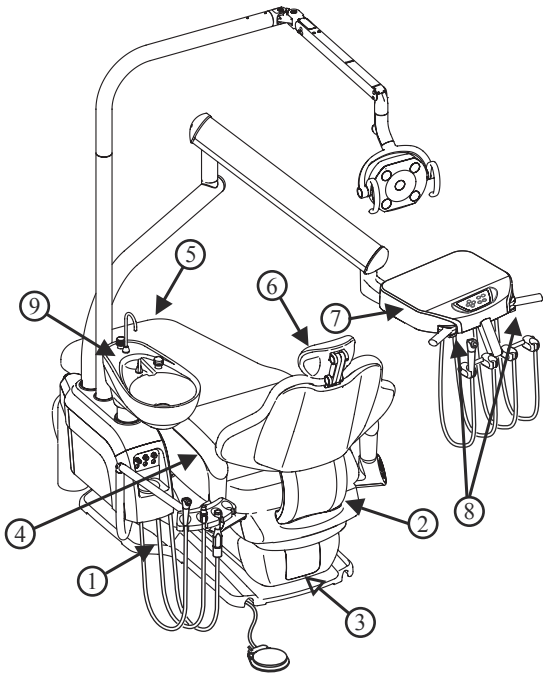
→ : Caution areas such as moving parts, rotating parts and detachable parts to which caution should be paid.

⇒ : Caution areas that are provided with an emergency stop mechanism.

Swing Mounted Delivery System
with Holder Type Table and Vac Pac and
CLESTA LED Light



Over the Patient Delivery System
with Holder Type Table and Cuspidor and
CLESTA LED Light



① Be aware of contact with the patient's instrument holder.
Ensure that the upper body of the patient does not go beyond the armrest into the cuspidor unit.

② Take care not to be trapped by moving parts of the backrest.
Do not put hands or feet into the gap between the backrest and the seat.

③ Take care not to be trapped between the sub link cover and the base plate.
Do not allow feet or obstruct between the sub link cover and the base plate.

④ Take care not to be trapped by the armrests.
Do not operate the chair with the armrests swing out 90 degrees.

⑤ Take care not to be trapped by the lower part of the seat.
Do not put hands or feet into the gap in the lower part of the seat.

⑥ Take care not to be trapped by moving parts of the headrest.
Do not allow hands, fingers or hair to become entangled in the moving parts of the headrest.

⑦ Be aware of interference between the chair and the table.
Do not move the table under the moving parts of the chair.

⑧ Pay attention while moving the Doctor's table up and down.
Do not move up and down the Doctor's table without releasing the balance arm brake.

⑨ Make sure that the patient does not lean on the cuspidor unit.
Pushing on the spittoon bowl causes it to swing outwards.

⑩ Take care not to be trapped by the joint part between the assistant arm and Vac pac main body.
Do not rotate the assistant arm holding the joint part by hands.

SAFETY PRECAUTIONS

■ Caution Points During Operation of the Product

Description of Symbol Marks

→ : Caution areas such as moving parts, rotating parts and detachable parts to which caution should be paid.

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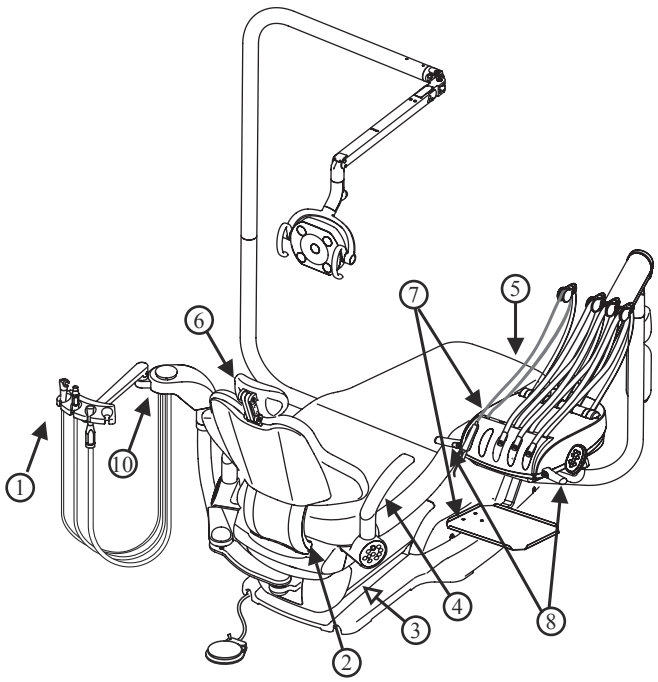
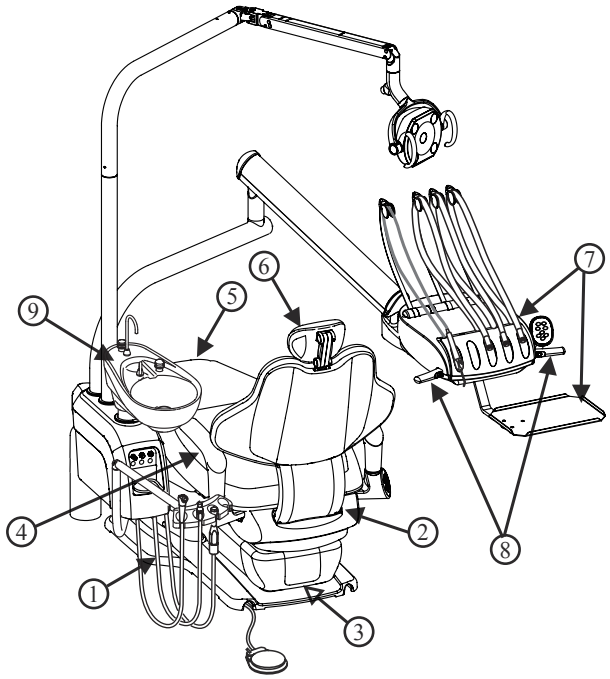
Swing Mounted Delivery System
with Continental Type Table and Vac Pac and
CLESTA LED Light



Over the Patient Delivery System
with Continental Type Table and Cuspidor and
CLESTA LED Light



① Be aware of contact with the patient's instrument holder.
Ensure that the upper body of the patient does not go beyond the armrest into the cuspidor unit.

② Take care not to be trapped by moving parts of the backrest.
Do not put hands or feet into the gap between the backrest and the seat.

③ Take care not to be trapped between the sub link cover and the base plate.
Do not allow feet or obstruct between the sub link cover and the base plate.

④ Take care not to be trapped by the armrests.
Do not operate the chair with the armrests swing out 90 degrees.

⑤ Take care not to be trapped by the lower part of the seat.
Do not put hands or feet into the gap in the lower part of the seat.

⑥ Take care not to be trapped by moving parts of the headrest.
Do not allow hands, fingers or hair to become entangled in the moving parts of the headrest.

⑦ Be aware of interference between the chair and the table.
Do not move the table under the moving parts of the chair.

⑧ Pay attention while moving the Doctor's table up and down.
Do not move up and down the Doctor's table without releasing the balance arm brake.

⑨ Make sure that the patient does not lean on the cuspidor unit.
Pushing on the spittoon bowl causes it to swing outwards.

⑩ Take care not to be trapped by the joint part between the assistant arm and Vac pac main body.
Do not rotate the assistant arm holding the joint part by hands.

SAFETY PRECAUTIONS

■ Caution Points During Operation of the Product

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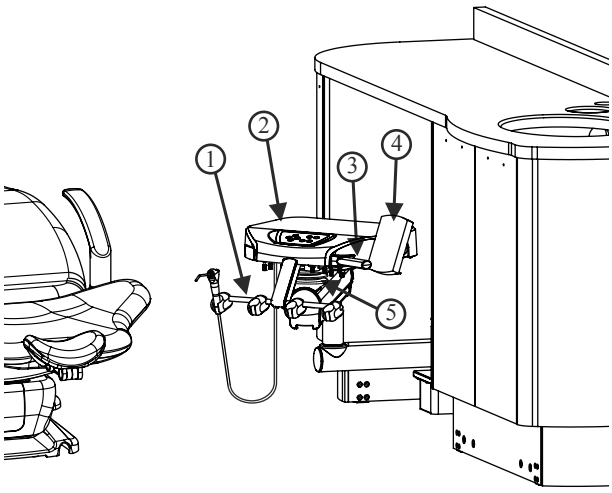
Side Delivery System



① Be aware of interference between the chair and handpiece holders.
Do not move the handpiece holders into the moving range of chair.

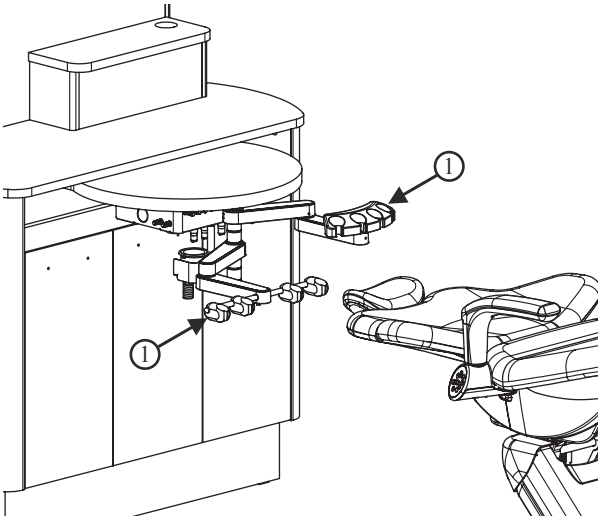
② Be aware of interference between the chair and the table.
Do not move the table into the moving range of chair.

③ Pay attention while moving the doctor's table up and down.
Do not move up and down the doctor's table without releasing the balance arm brake.

④ When putting the doctor table into the cabinet, be careful not to let the touchpad hit the cabinet.
※ The touchpad is an optional part.

⑤ Be aware of not to push the bellows cover part.

Rear Delivery System



① Be aware of interference between the chair and the arm.
Do not move the arm into the moving range of chair.

OPERATING PRECAUTIONS

■ Please observe following cautions to avoid the damage.

⚠ CAUTION

1. Do not place anything hot on the unit

Do not place anything hot on the unit. This could cause deformation or discoloration.

2. Precautions for cleaning

Never use sandpaper, metal scrub brushes or abrasive cleaning agents to clean the unit.
Do not use strongly acidic cleaning agents or alkaline pipe cleaning agents, which may cause corrosion of metals, etc.

3. Precautions for cleaning the operation panel (membrane switches)

Penetration of droplets of disinfecting spray into the back of the operation panel may be associated with switch failure. Use a paper towel soaked with disinfecting solution to clean the surface of the operation panel.

4. Precautions for cleaning of the spittoon bowl

The spittoon bowl is made of ceramic. It may break if it is impacted. Do not wash it with hot water. Otherwise, it may break.

5. Precautions for cleaning the resin cover

For cleaning, do not use cleaning agents containing solvent or abrasives, thinners or oil-based alcohol (butanol and isopropyl alcohol), which may cause cracks.

6. Insert the nozzle straight into spittoon

Be sure to insert the cupfiller nozzle and bowl flush nozzle straight into each hole on the spittoon bowl after cleaning. Damage to the packing may lead to water leakage.

7. Move the table to highest position upon completion of work (Over the patient type)

When air exhausts from balance arm brake while no object is placed on the table, the doctor table may automatically raise to the highest position. Move the table to the highest position upon completion of work.

8. Precautions when using handpieces, etc.

In order to ensure safety, be sure to confirm that rotation has completely stopped before changing the rotation speed of the micromotor or inserting/removing the bar of handpieces. See the instruction manuals accompanying various handpieces for further information.

PRECAUTIONS FOR REGULATIONS

■ Make sure to pay careful attentions to the regulations on water and air by the local authorities as mentioned herein under.

⚠ CAUTION

1. Incoming water quality for the unit

Incoming water for this unit shall be qualified by a local waterworks authority including the hardness range of the water.
The operator of this unit is requested to confirm that the quality of the incoming water meets the quality standard of a local waterworks authority when using the unit.

2. Particle filter (in Junction Box)

Size and material of the particle filter : 40µm, Hydrophilic Polyethylene Foam (for Water)
20µm, Hydrophilic Polyethylene Foam (for Air)
Should you recognize the exhausting air and/or water pressure is weakening, this phenomenon maybe caused by the clogged filter, in this case you will be required to replace the filter.

3. Backflow prevention

Backflow prevention of procedural water into municipal water line is regulated by law. This unit is carefully designed to prevent the mentioned backflow. Any attempt that may causes unexpected backflow such as putting handpieces into water in a cup is prohibited.

4. Incoming air quality for the unit

Incoming dental air to this unit shall be free from oil, water, bacteria etc.
If dental air quality is regulated by national authority, follow their regulations.

PRACTICE OF FLUSH OUT

Precautions for water quality

⚠CAUTION

Practice the flush out of water retained in the unit at the beginning of each work day to maintain the quality of dental treatment water and ensure a steady supply of water to handpieces.

- After this unit has not been used for a long period of time (at the beginning of the week, in the morning etc.), water retained in the hose inside the unit will create an environment where unwanted bacteria are likely to grow. In order to ensure safe treatment and untroubled operation of handpieces, practice the flush out of the unit water line at the beginning of each work day.
- It is recommended that flush out water inside the unit and hose of handpieces should be performed with fresh water at the end of morning office hours and at the end of each work day to inhabit the growth of unwanted bacteria.

■ Standard time required for flush out of the unit water line

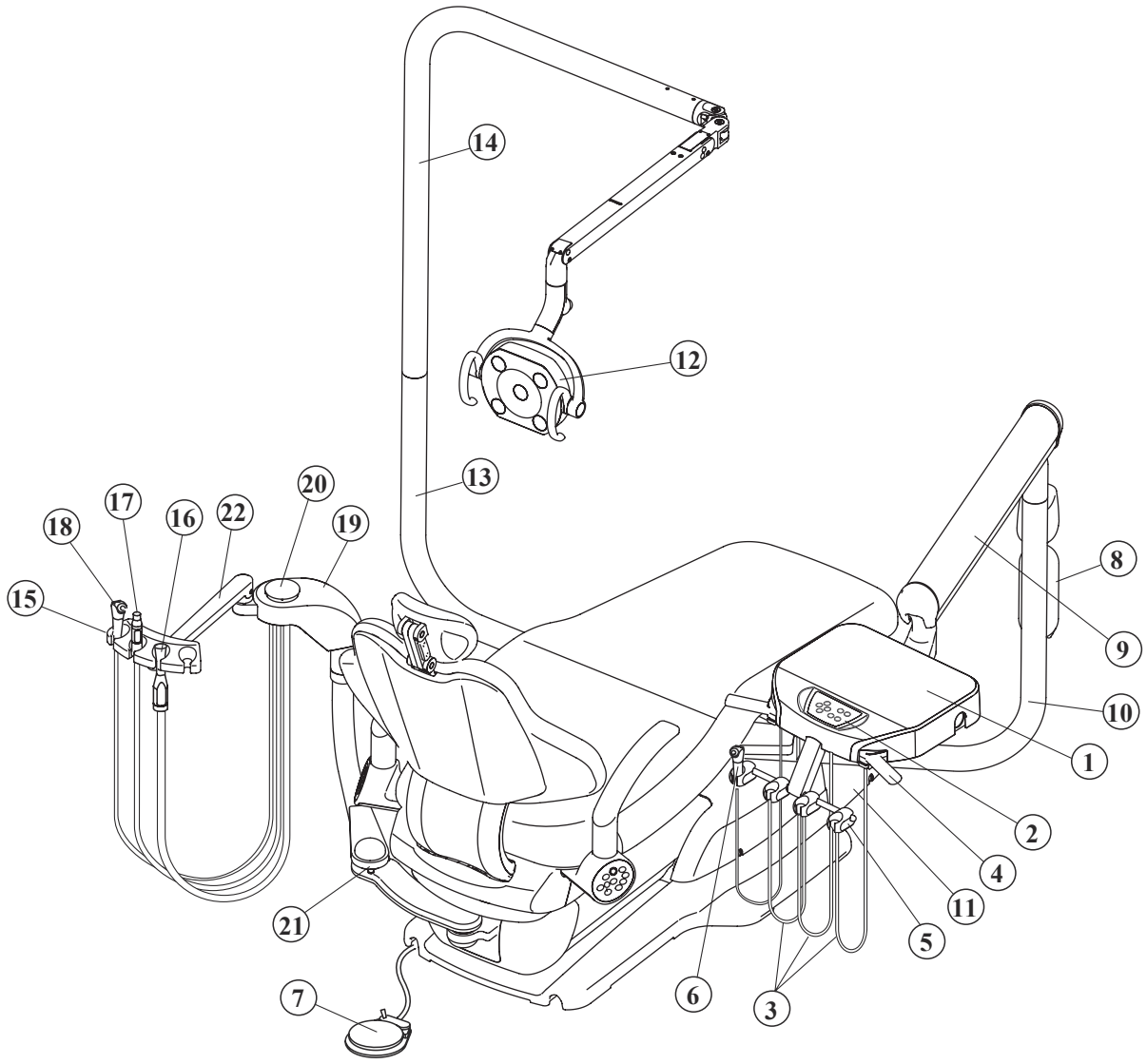
● Handpiece line Handpiece Syringe (Both Doctor' s and Assistant's) ⚠CAUTION Perform flush out of the scaler with it attached to the main unit. Otherwise, a malfunction may be caused.	Approximately 40 seconds per turbine, motor, scaler and syringe (approximately 40 seconds when flush out of all of them is performed at the same time.)
● Cuspidor line Cupfiller Bowl flush	Approximately 5 minutes for water changing in the cup filler line.

Procedure of flush out

● Handpiece line Handpiece Pick up handpieces from the holder one at a time, leave the turbine untouched and remove the bar from the motor and hold the motor over the spittoon bowl. (When the flush out function is active, pick up all handpieces in clusters and hold them over the spittoon bowl.)	Pick up the handpieces then turn on the flush out switch to flush out the handpiece water.
● Syringe (Both Doctor's and Assistant's)	Pick up the Syringe then push the button of the Syringe water to flush out the Syringe water.
● Cuspidor line Cupfiller Bowl flush	The water filled to the cup, then drain the water of the cup to flushing out the cupfiller water. Repeat it 7~8 times.

OVERVIEW AND MAJOR COMPONENTS

Swing Mounted Delivery System with Holder Type Table and Vac Pac and CLESTA LED Light (Quolis Chair)

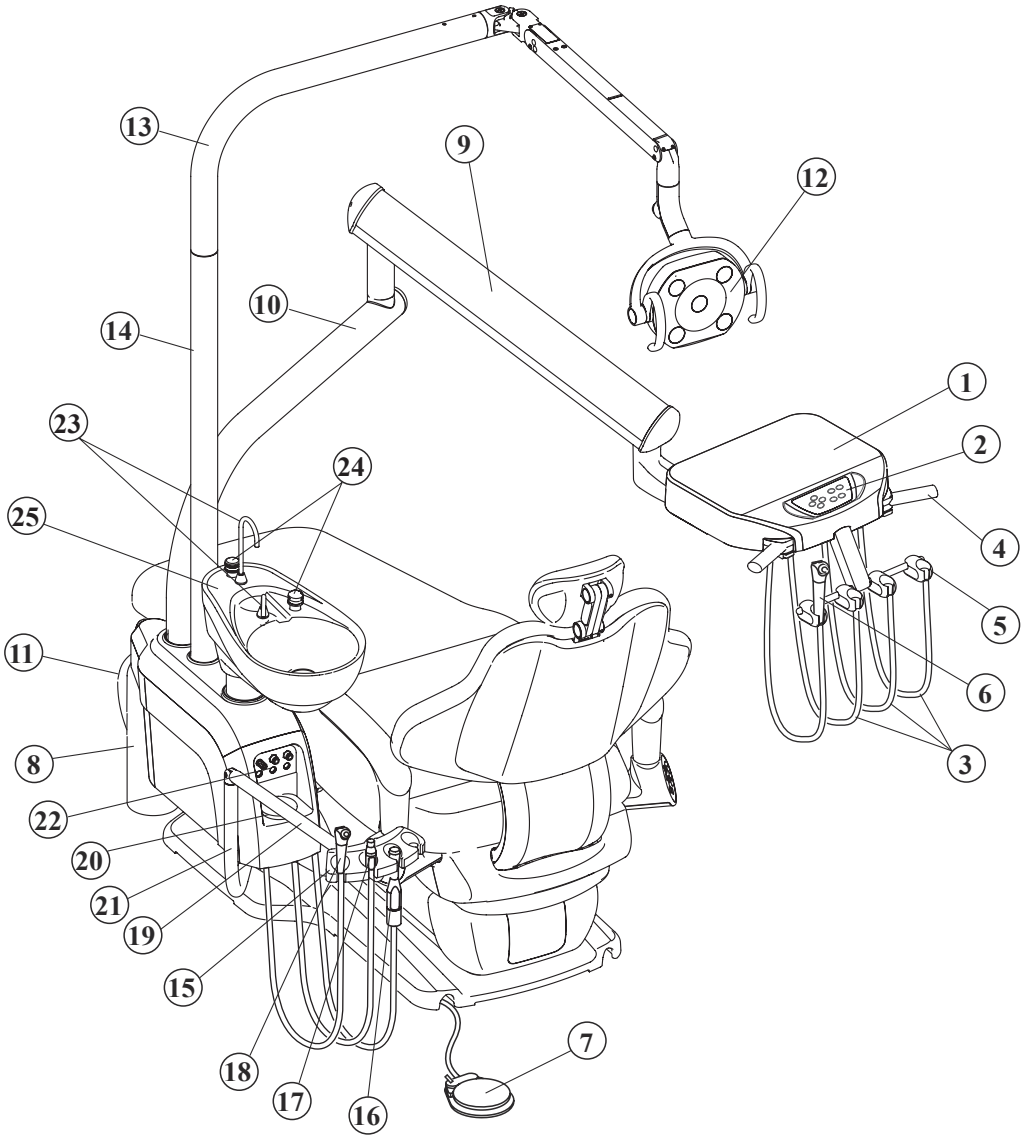


(1) Control Head
(2) Main Control Panel
(3) Handpiece Hose
(4) Handle
(5) Handpiece Holders
(6) Dr's Syringe (*)
(7) Foot Control
(8) Water Bottle
(9) Balance Arm
(10) Dr Swing Arm
(11) Junction Box
(12) Dental Light
(13) Dental Light Swing Arm
(14) Light Pole
(15) Assistant Instrument Holder
(16) HVE
(17) Saliva Ejector
(18) Assistant's Syringe (*)
(19) Vac Pac Housing
(20) Solids Collector
(21) Assistant Swing Arm
(22) Assistant Holder Arm

*(*Note) Evogue does not include syringe tips. Syringe tips manufactured by DCI are compatible with syringes used with this delivery system.*

OVERVIEW AND MAJOR COMPONENTS

Over the Patient Delivery System with Holder Type Table and Cuspidor and CLESTA LED Light (Quolis Chair)



(1) Control Head
(2) Main Control Panel
(3) Handpiece Hose
(4) Handle
(5) Handpiece Holders
(6) Dr's Syringe (*)
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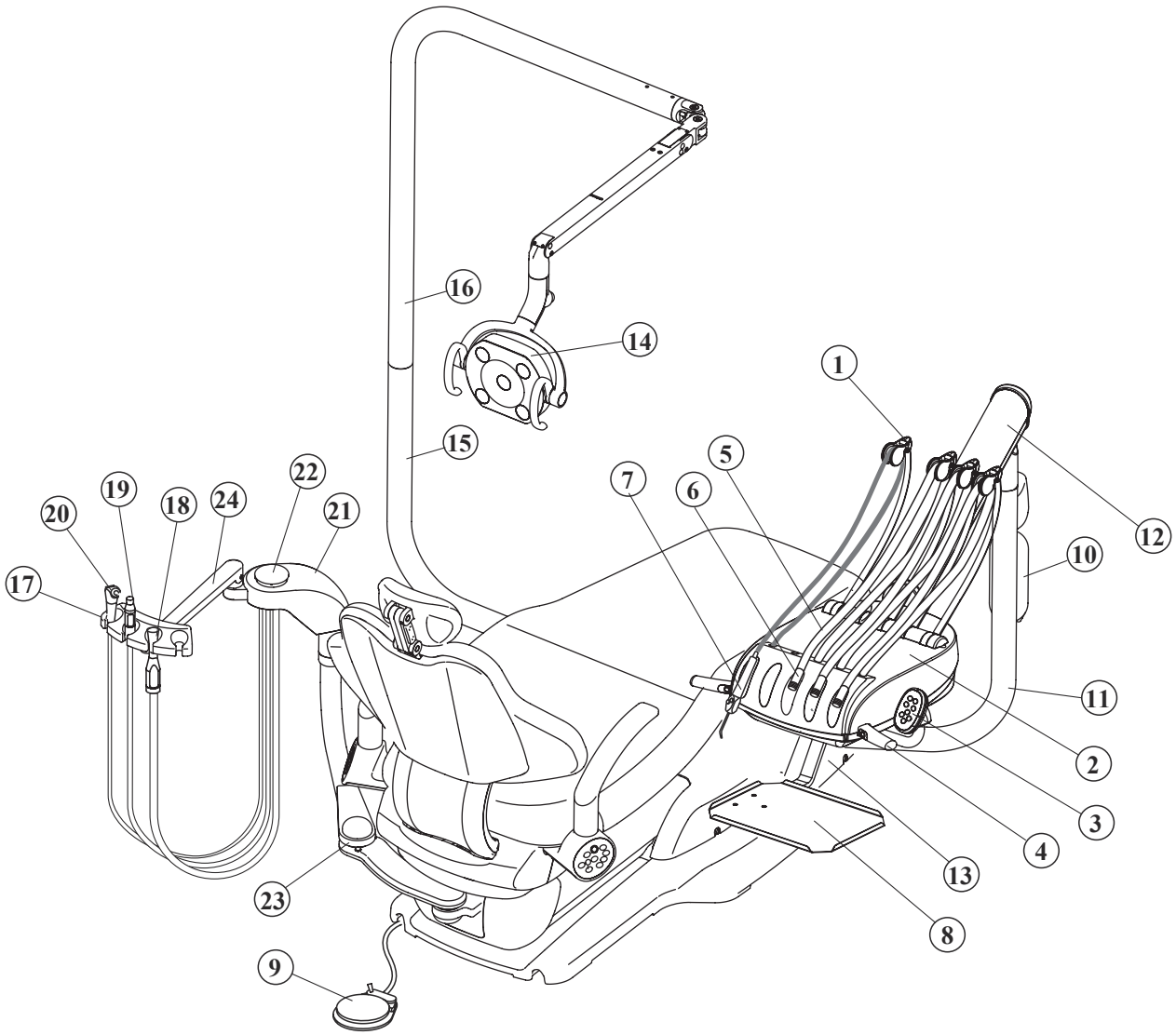
(13) Dental Light Swing Arm
(14) Light Pole
(15) Assistant Instrument Holder
(16) HVE
(17) Saliva Ejector
(18) Assistant's Syringe (*)
(19) Assistant Holder Arm
(20) Solids Collector
(21) Assistant Swing Arm
(22) PMU front panel
(23) Cupfiller nozzle and bowl flush nozzle
(24) Cupfiller switch and bowl flush switch
(25) Cuspidor bowl

*(*Note) Evogue does not include syringe tips. Syringe tips manufactured by DCI are compatible with syringes used with this delivery system.*

OVERVIEW AND MAJOR COMPONENTS

Swing Mounted Delivery System with Continental Type Table and Vac Pac and CLESTA LED Light (Quolis Chair)

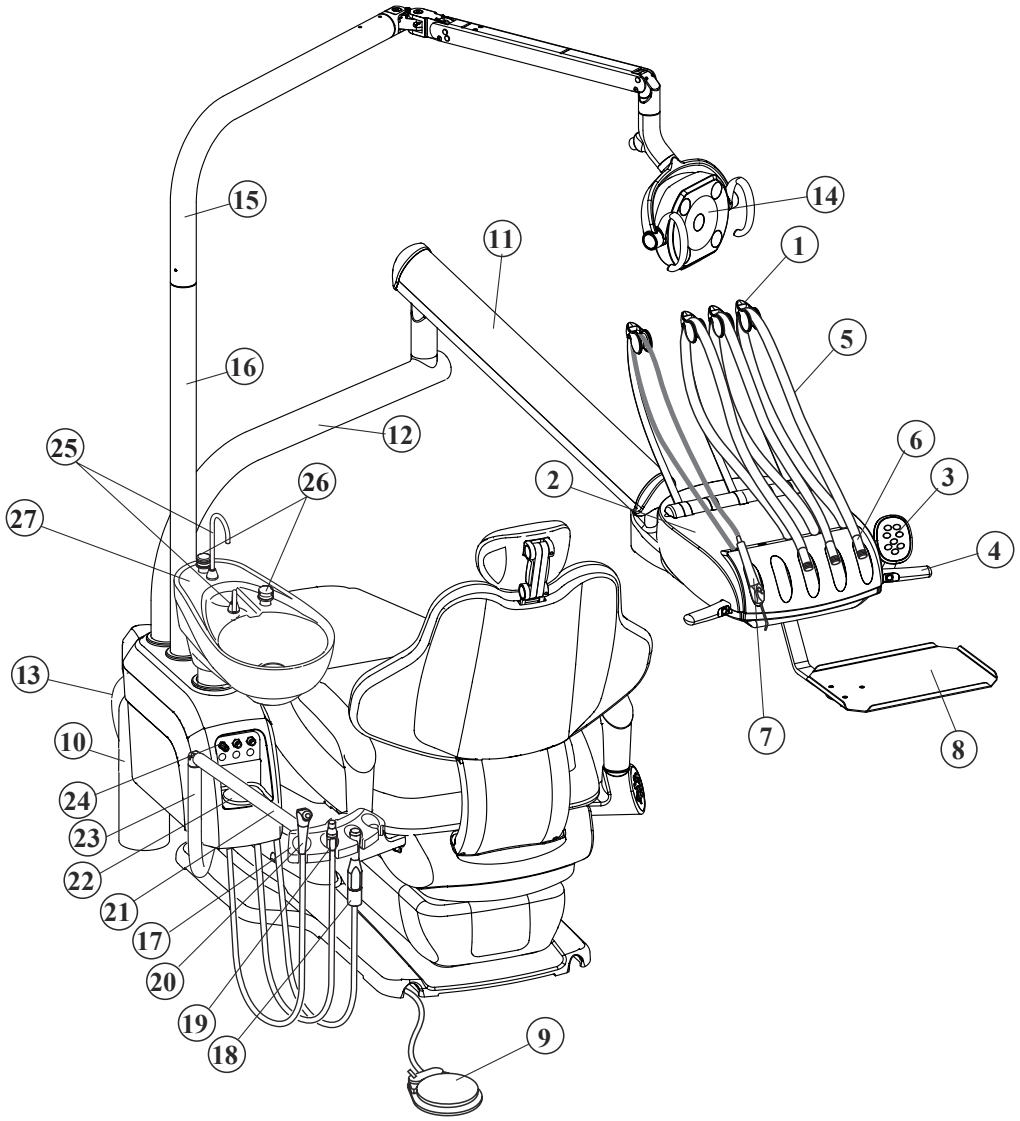


(1) Rod Mecha
(2) Control Head
(3) Main Control Panel
(4) Handle
(5) Handpiece Hose
(6) Handpiece Rest
(7) Dr's Syringe (*)
(8) Sub Tray
(9) Foot Control
(10) Water Bottle
(11) Balance Arm
(12) Dr Swing Arm
(13) Junction Box
(14) Dental Light
(15) Dental Light Swing Arm
(16) Light Pole
(17) Assistant Instrument Holder
(18) HVE
(19) Saliva Ejector
(20) Assistant's Syringe (*)
(21) Vac Pac Housing
(22) Solids Collector
(23) Assistant Swing Arm
(24) Assistant Holder Arm

*(*Note) Evogue does not include syringe tips. Syringe tips manufactured by DCI are compatible with syringes used with this delivery system.*

OVERVIEW AND MAJOR COMPONENTS

Over the Patient Delivery System with Continental Type Table and Vac Pac and CLESTA LED Light (Quolis Chair)

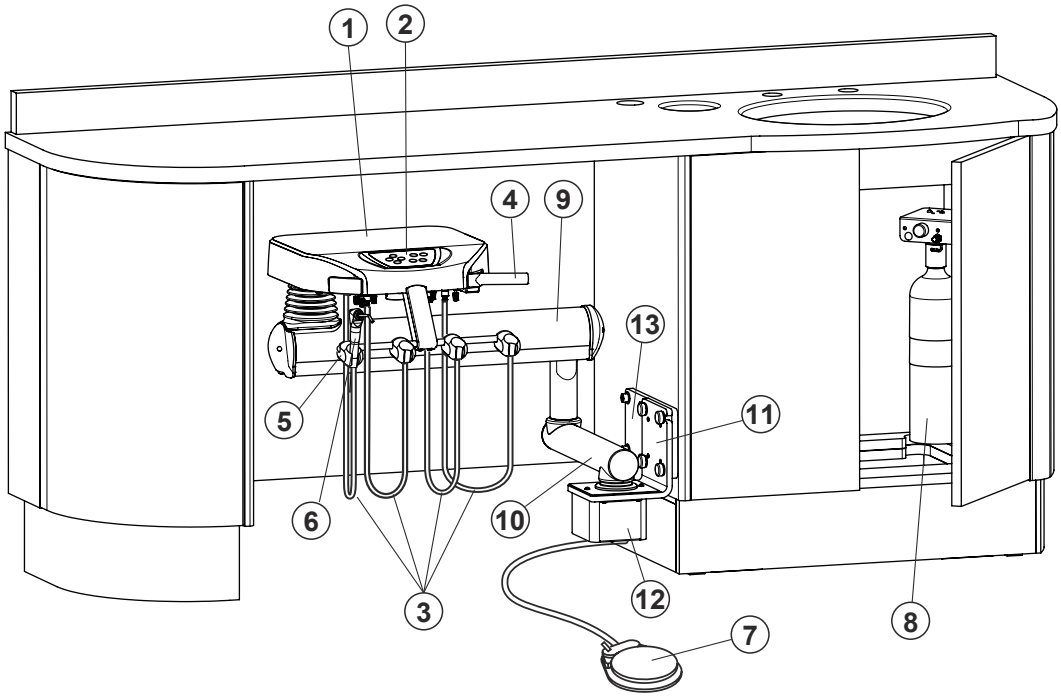


(1) Rod Mecha
(2) Control Head
(3) Main Control Panel
(4) Handle
(5) Handpiece Hose
(6) Handpiece Rest
(7) Dr's Syringe (*)
(8) Sub Tray
(9) Foot Control
(10) Water Bottle
(11) Balance Arm
(12) Dr Swing Arm
(13) Junction Box
(14) Dental Light
(15) Dental Light Swing Arm
(16) Light Pole
(17) Assistant Instrument Holder
(18) HVE
(19) Saliva Ejector
(20) Assistant's Syringe (*)
(21) Assistant Holder Arm
(22) Solids Collector
(23) Assistant Swing Arm
(24) PMU front panel
(25) Cupfiller nozzle and bowl flush nozzle
(26) Cupfiller switch and bowl flush switch
(27) Cuspidor bowl

*(*Note) Evogue does not include syringe tips. Syringe tips manufactured by DCI are compatible with syringes used with this delivery system.*

OVERVIEW AND MAJOR COMPONENTS

Side Delivery System

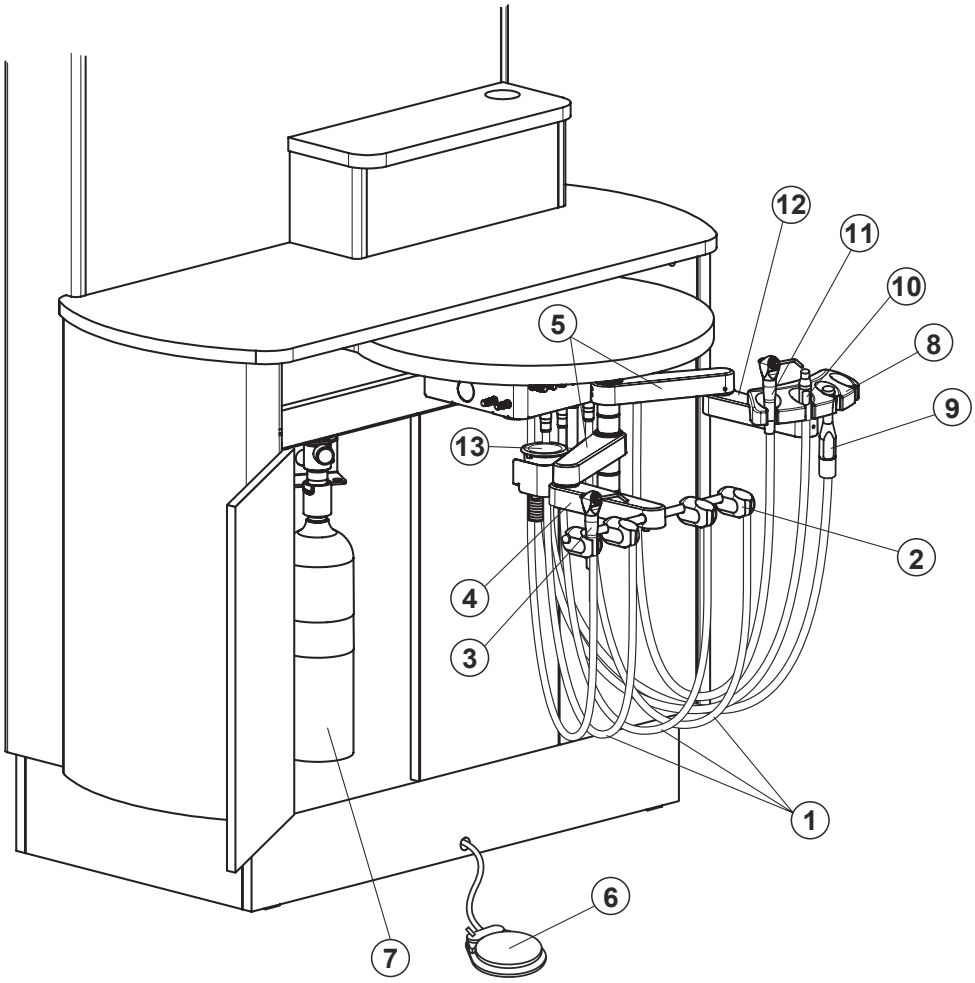


(1) Control Head
(2) Main Control Panel
(3) Handpiece Hose
(4) Handle
(5) Handpiece Holders
(6) Dr's Syringe (*)
(7) Foot Control
(8) Water Bottle
(9) Balance Arm
(10) First Arm
(11) Mounting Bracket
(12) Mounting Bracket Cover
(13) Mounting Plate

*(*Note) Evogue Dental Unit does not include syringe tips. Syringe tips manufactured by DCI are compatible with syringes used with this delivery system.*

OVERVIEW AND MAJOR COMPONENTS

Rear Delivery System

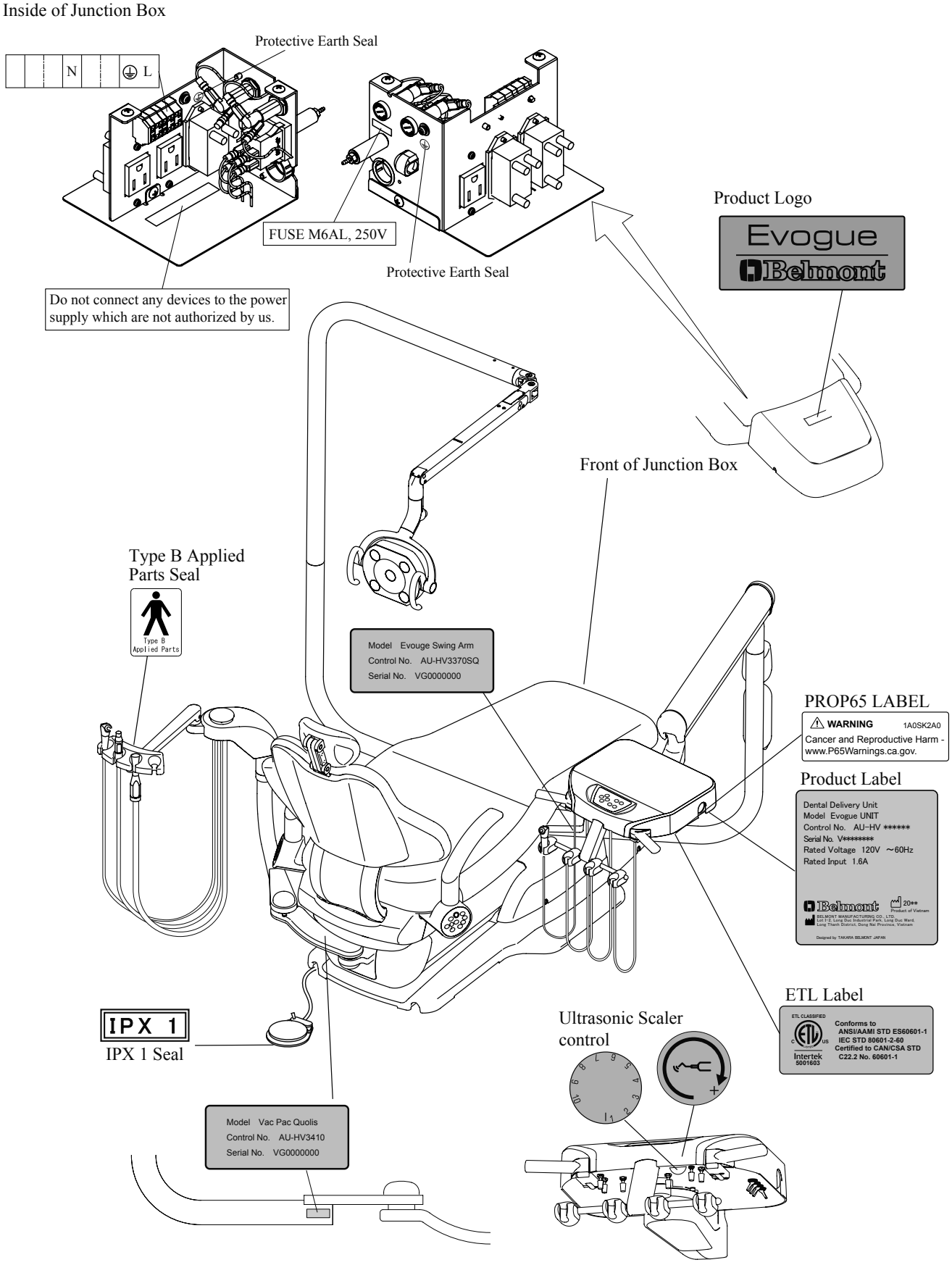


(1) Handpiece Hose
(2) Handpiece Holders
(3) Dr's Syringe (*)
(4) Doctor Arm
(5) First Arm
(6) Foot Control
(7) Water Bottle
(8) Assistant Instrument Holder
(9) HVE
(10) Saliva Ejector
(11) Assistant's Syringe (*)
(12) Assistant Arm
(13) Solids Collector

*(*Note) Evogue Dental Unit does not include syringe tips. Syringe tips manufactured by DCI are compatible with syringes used with this delivery system.*

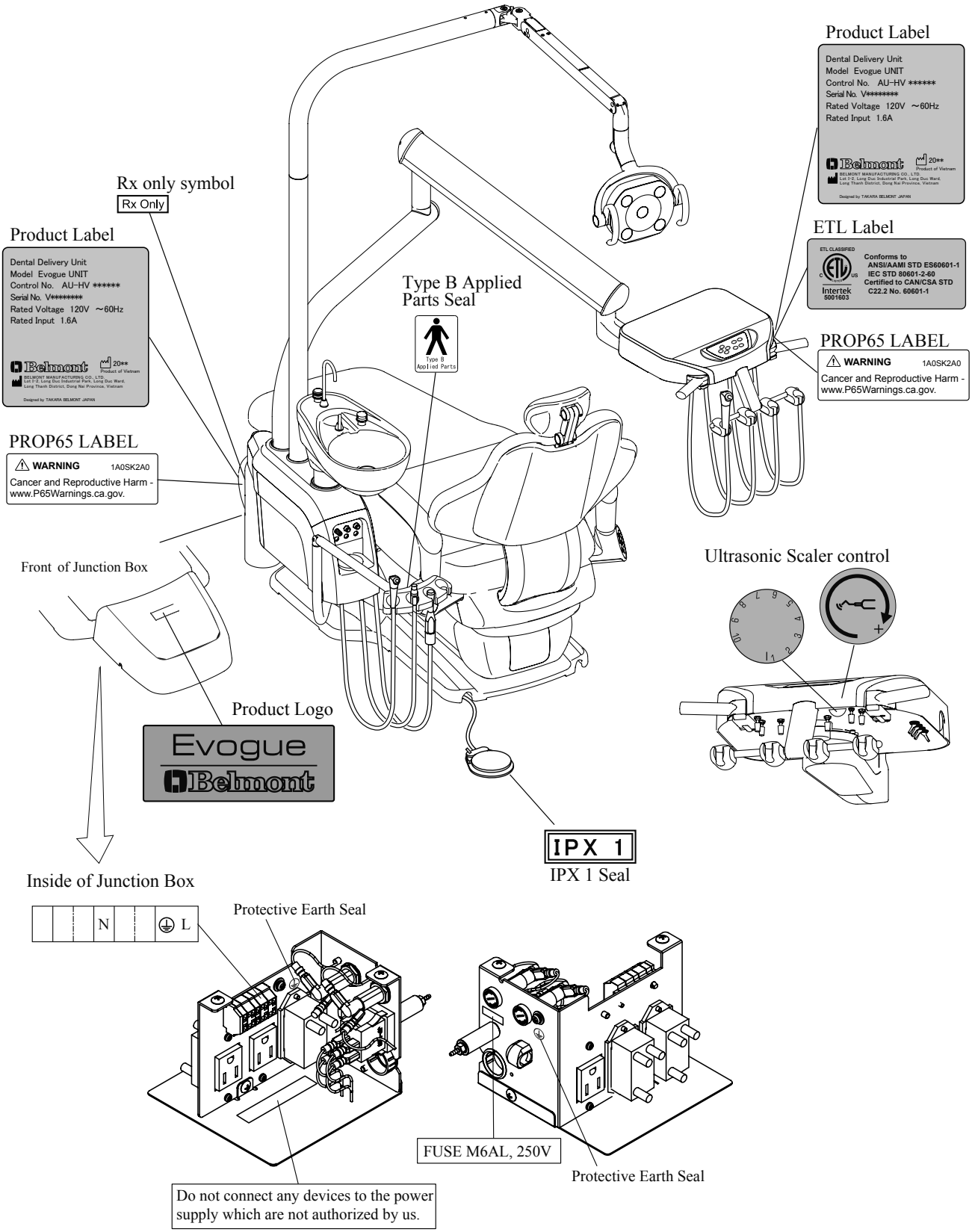
LOCATION OF THE LABELS

Swing Mounted Delivery Systme with Holder Type Table and Vac Pac and CLESTA LED Light
Labels are located on the product as below.



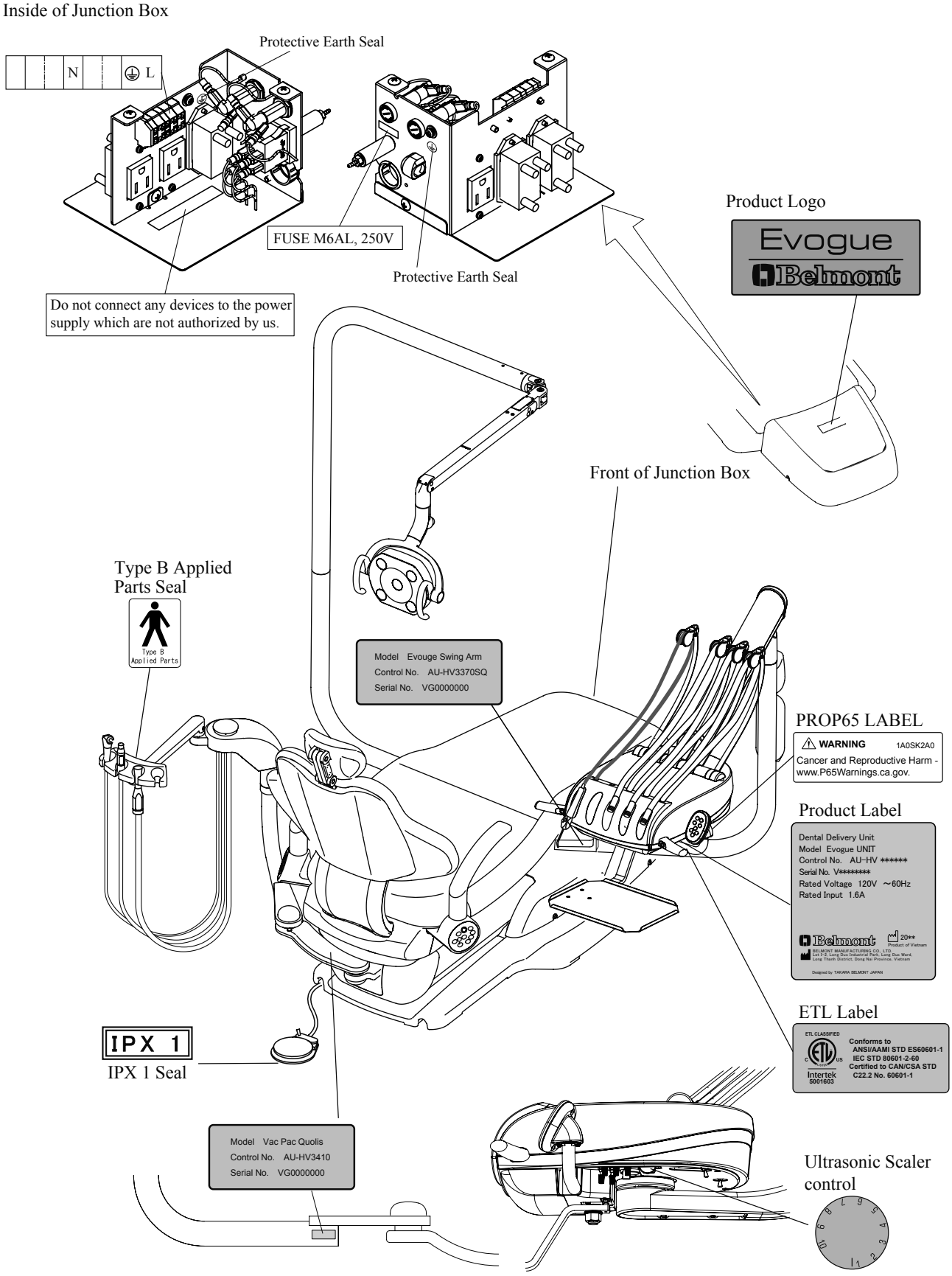
LOCATION OF THE LABELS

Over the Patient Delivery System with Holder Type Table and Cuspidor and CLESTA LED Light
Labels are located on the product as below.



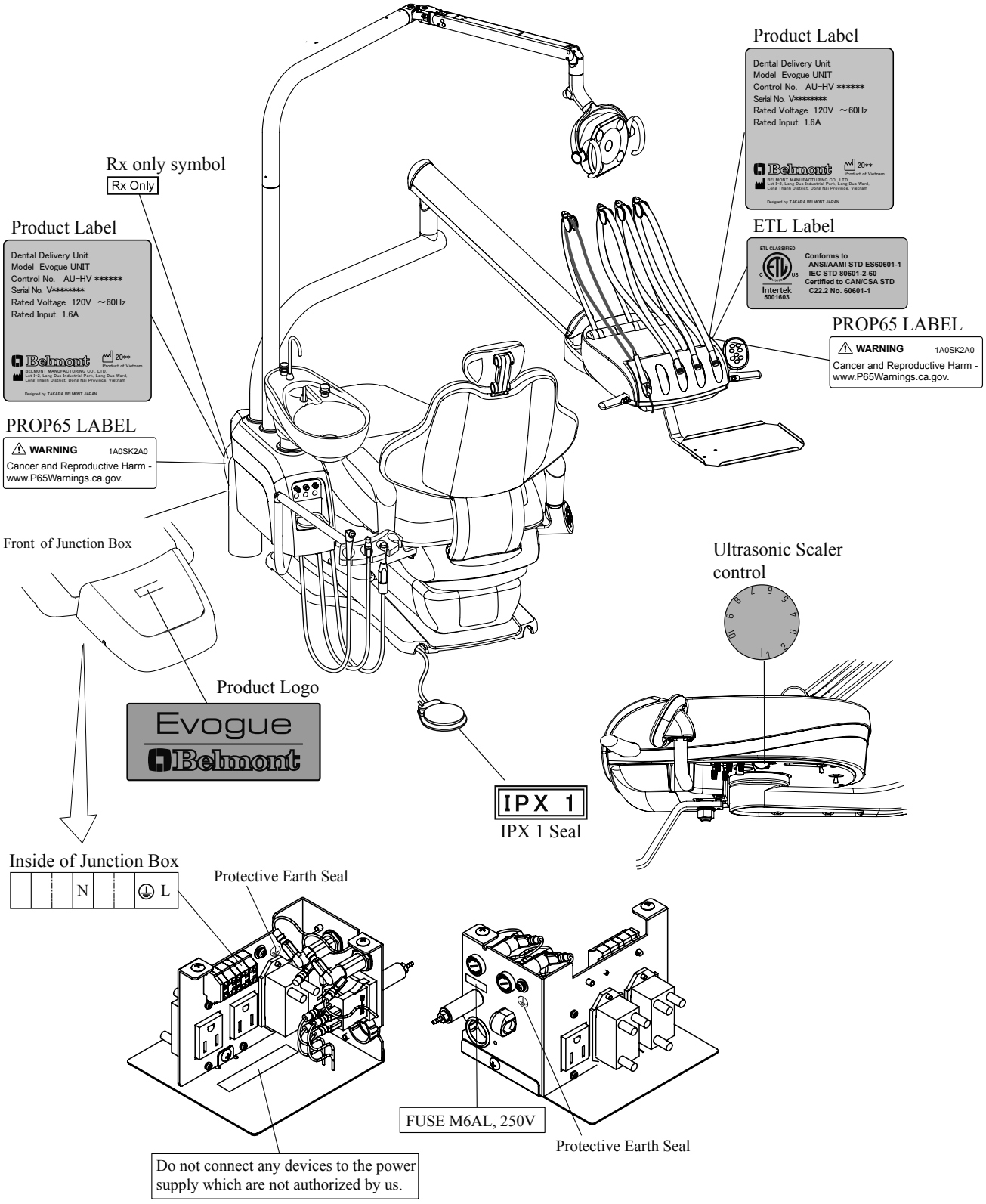
LOCATION OF THE LABELS

Swing Mounted Delivery Systme with Continental Type Table and Vac Pac and CLESTA LED Light
Labels are located on the product as below.



LOCATION OF THE LABELS

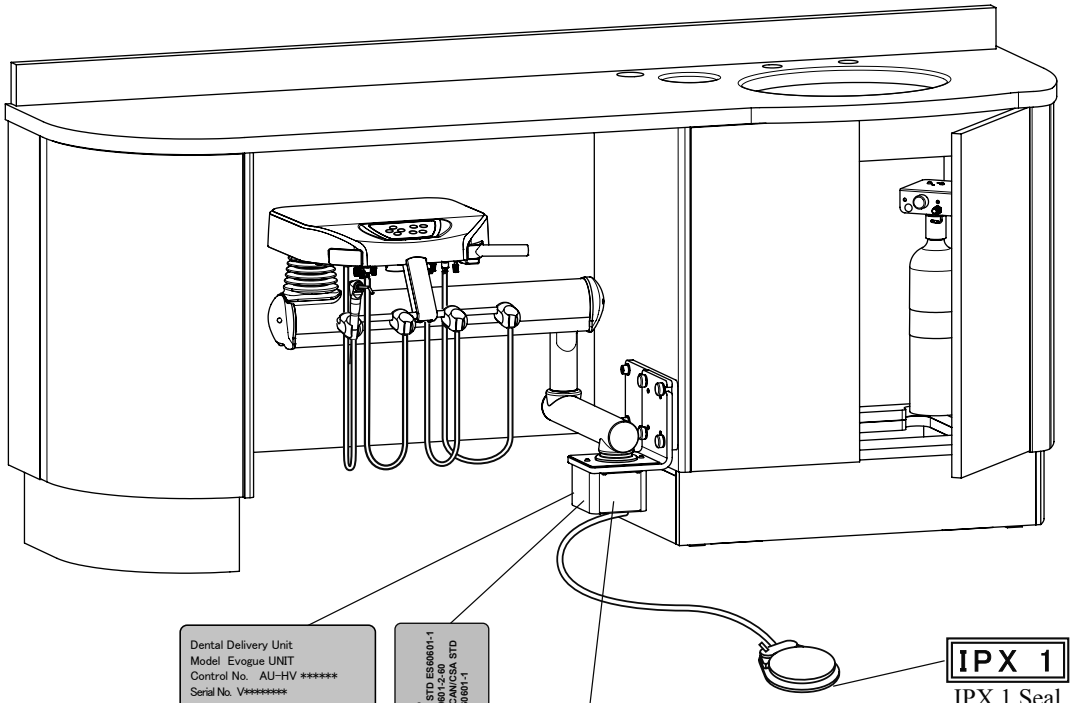
Swing Mounted Delivery Systme with Continental Type Table and Vac Pac and CLESTA LED Light
Labels are located on the product as below.



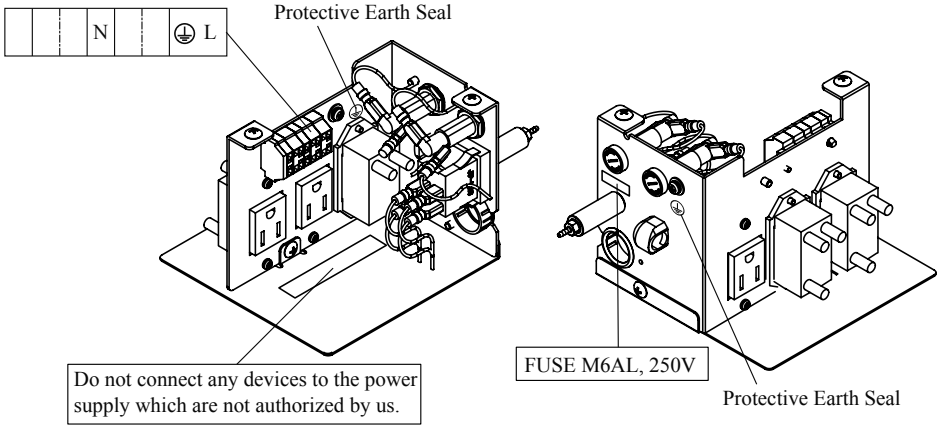
LOCATION OF THE LABELS

Side Delivery System

Labels are located on the product as below.



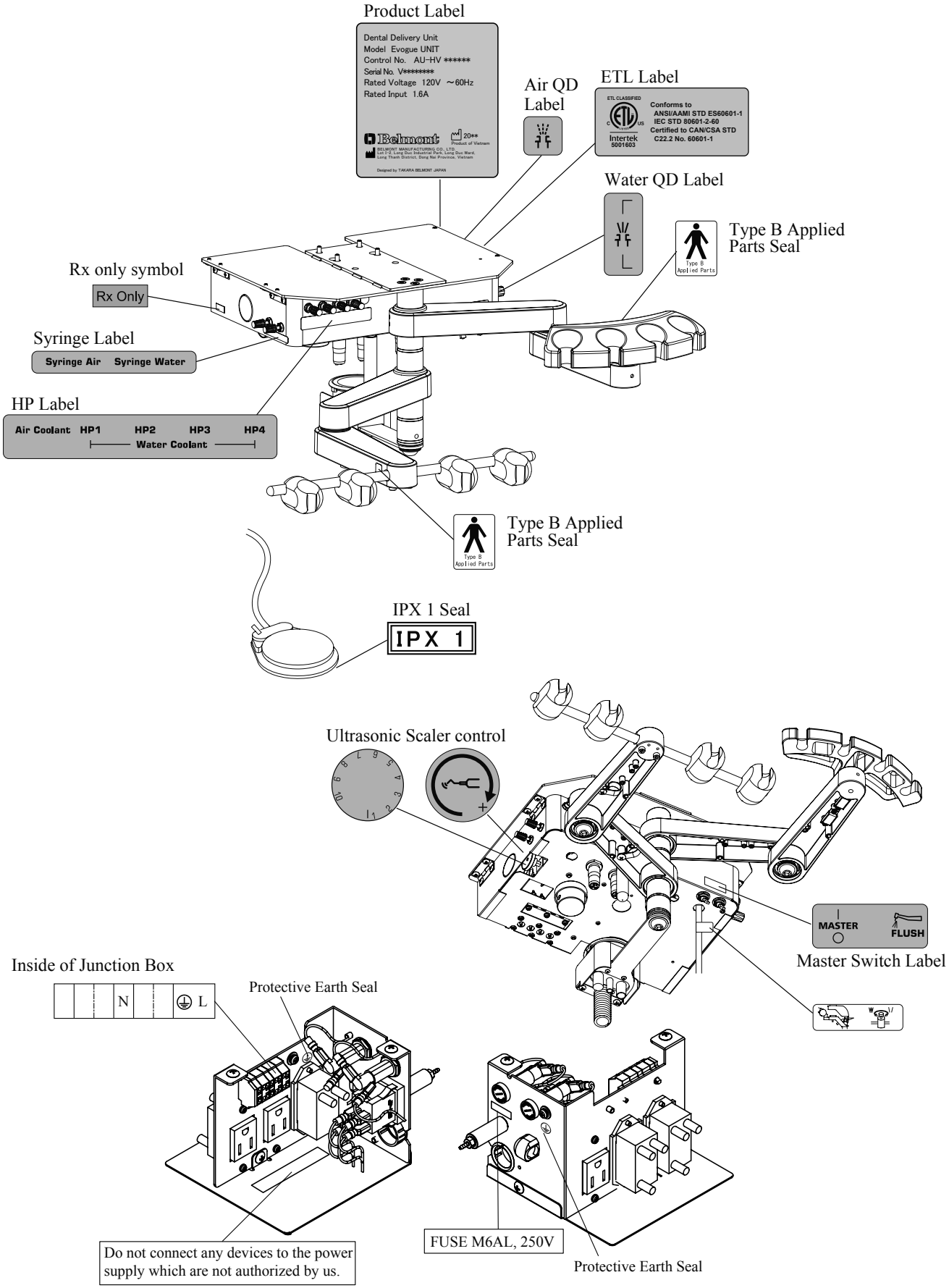
Inside of Junction Box



LOCATION OF THE LABELS

Rear Delivery System

Labels are located on the product as below.



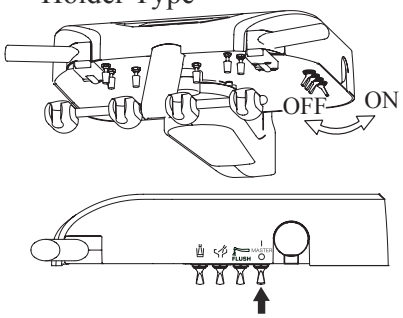
OPERATING INSTRUCTIONS

1. Doctor Table Section

1-1. Master Switch

Turn on the master switch located under the doctor table.

Holder Type

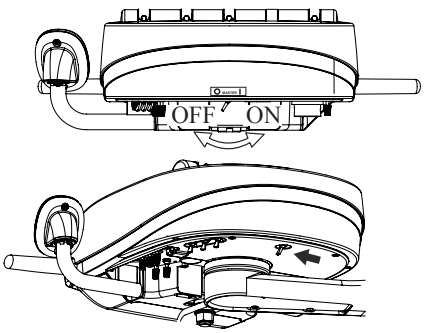


⚠CAUTION

Turn off the master switch after daily operation and for long term interval. Be sure to operate switches with your hands. If operate with other than hands, it may cause damage or incorrect operation.

Confirm that the master switch is set at outside position.
Confirm that all of the handpieces are correctly set at the handpiece holders. If a handpiece is not set correctly, this may cause unexpected rotation of a handpiece. If a handpiece can't be set correctly, stop using the unit and contact our dealer or us.

Continental Type



1-2. Control Panel

(1) Chair Manual Control Switches

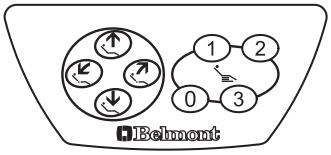
1) Seat Raising
Press the ( ) switch until the seat is raised up to the desired position.

2) Seat Lowering
Press the ( ) switch until the seat is lowered to the desired location.

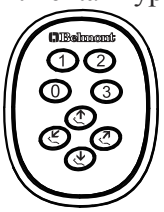
3) Backrest Reclining
Press the ( ) switch until the backrest is reclined to the desired position.

4) Backrest Raising
Press the ( ) switch until the backrest is raised up to the desired position.

Holder Type



Continental Type



(2) Chair Pre-set Switches

Preset Operation

There are three pre-sets : (1) (2) (3) . Pre-sets can be selected by momentarily pressing desired switches.

Seat positioning presets can be set by the operator to conveniently position patients for procedures.

(Note:For pre-set position adjustment and auto-return, refer to chair operation manual.)

(3) Chair Auto Return Switch

1) Momentarily press the auto return switch (0) the chair returns to the initial position (the seat is the lowest position and the backrest is the upright position).

2) Emergency Stop (Safety Stop)
Pressing any chair control switch while the seat is in motion, automatically stops all.

⚠CAUTION

To avoid the potential for patient and operatory injury :
- **Patient must be fully seated on the chair against backrest, with legs and heels on the seat and hands on top of the armrest before chair is operated.**
- **Operator and assistant must keep feet and hands clear from chair, until patient has been moved into treatment position.**

To avoid the potential for damage to chair, delivery system and other furniture :
- **Keep area around chair free from objects that might be damaged by chair when it is motion.**

OPERATING INSTRUCTIONS

1-3. Handpiece

The handpiece is actuated by picking it up from the handpiece holder and operating the foot controller. Operation of the each handpieces, please refer to the manufacturer's instruction manual attached to the individual equipment.

Use the handpieces described in the list of compatible handpieces (Page 51) for this unit.

⚠CAUTION

Carefully read the handpieces' operating instruction manuals and related documents attached to each handpiece.

⚠CAUTION

Carefully follow the handpiece manufacturer's installation recommendations.

1-4. Fiber optic Light (Option)

The handpiece light will be activated by picking up a handpiece and by pressing a foot controller. To use the handpiece light, you need to have an optional light pack and a handpiece with fiber optic light. You can use up to two handpieces with fiber optic light.

1-5. Cupfill and Bowl Flush

These switches are equipped only with the PMU system which has the Bowl.

(1) Cupfiller switch

Turn on the switch to supply water to cup from the cupfiller nozzle. Water is supplied while the switch is on.

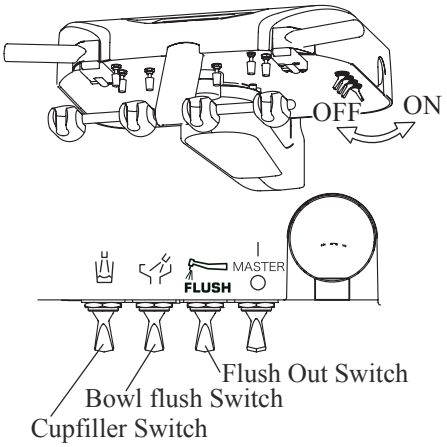
(2) Bowl flush switch

Turn on the switch to supply water from the bowl flush nozzle to clean the cuspidor bowl.

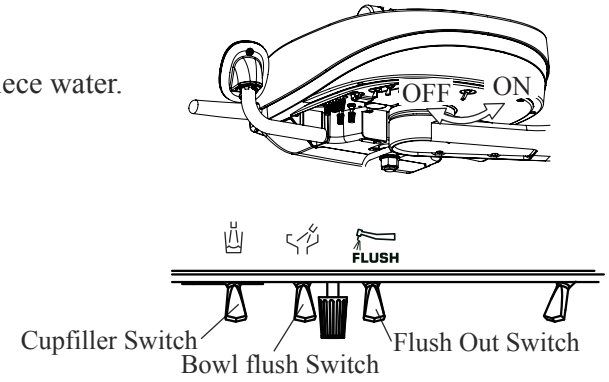
Flush water is supplied for certain period of time.

Confirm that the cupfiller nozzle and the bowl flush nozzle are properly positioned.

Holder Type



Continental Type



1-6. Flush Out

Turn on the switch to supply water to flush out the handpiece water.

(See details at Page 33)

OPERATING INSTRUCTIONS

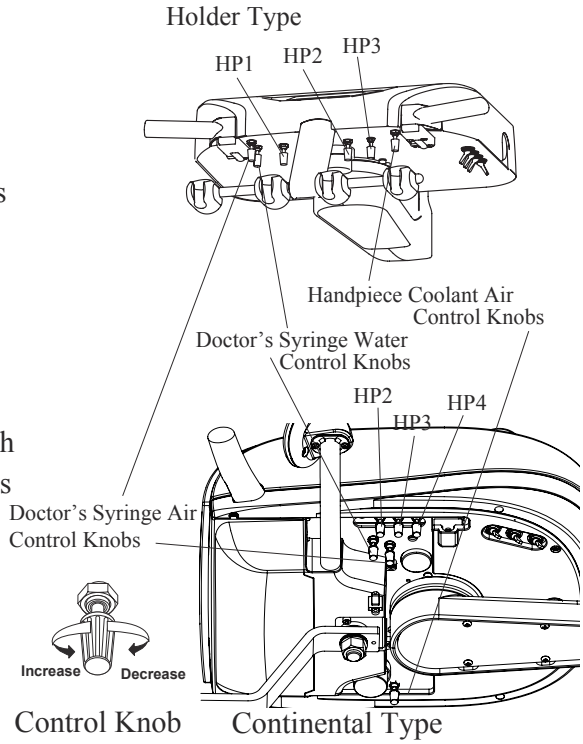
1-7. Doctor Table Section Controls

(1) Handpiece Spray Water Control Knobs

The handpiece coolant water control knobs and coolant Air are located underneath the doctor table.
Each handpiece coolant water control knob is identified as number 1 to 3 from the left side HP1, HP2 and HP3.
The handpiece coolant water volume can be controlled independently.

(2) Doctor's Syringe Flow Control Knobs

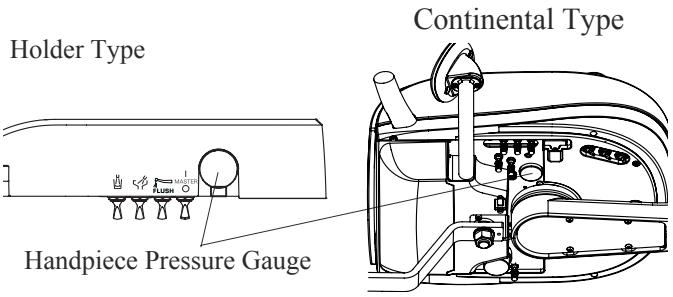
Doctor's syringe flow control knobs are located underneath the doctor table. The flow control knobs adjust the doctor's syringe air and water flow volume.
The yellow capped knob is the air flow control knob, the blue capped knob is the water flow control knob.
Turning the control knob counterclockwise will increase the flow volume and turning clockwise will decrease.



Note) Evogue Dental Unit does not include syringe tips. Syringe tips manufactured by DCI are compatible with this device.

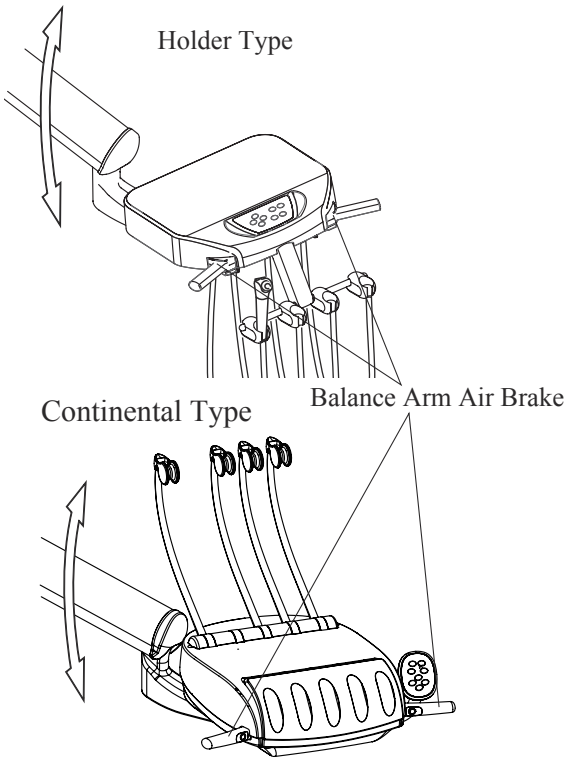
1-8. Handpiece pressure Gauge

Handpiece drive air pressure gauge is located in the doctor table. While a handpiece is working, the handpiece drive air pressure is indicated on the handpiece pressure gauge.



1-9. Balance Arm Air Brake

Balance arm air brake buttons are located on the handle. Grasp the handle and press the air brake button to release brake and adjust the table height. Release the air brake button at the desires table position and the balance arm position will be locked.



⚠ WARNING

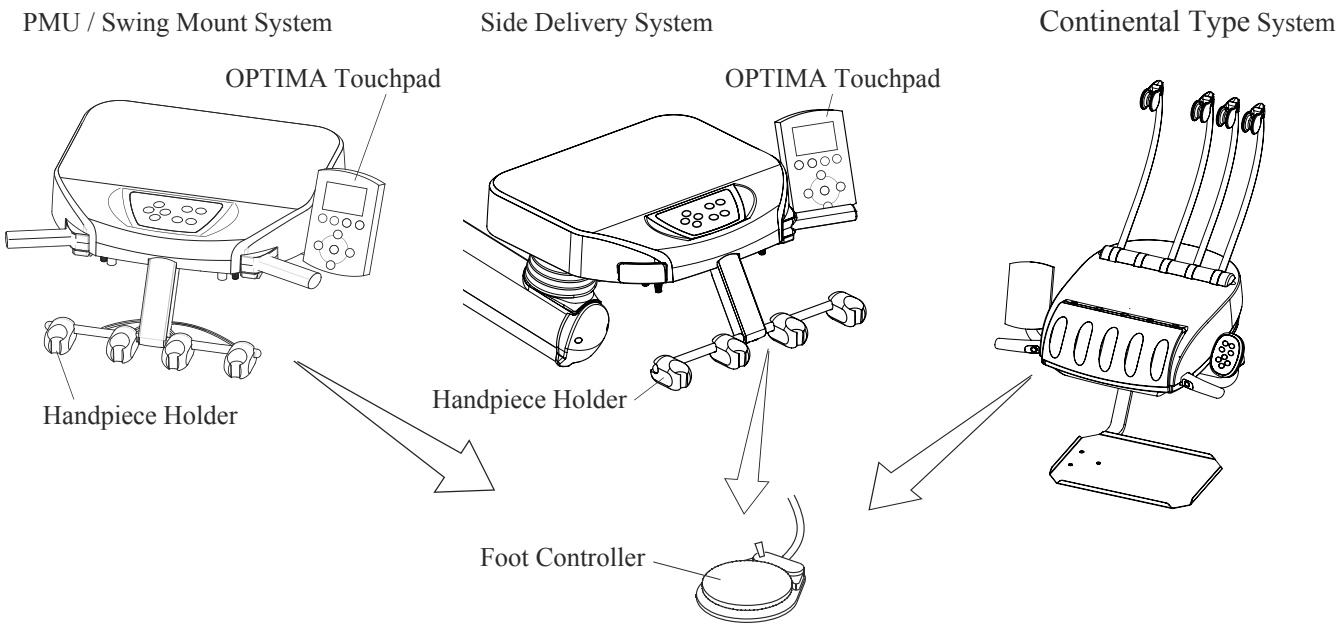
Do not place objects weighing 4.40 pounds or more on the Doctor's table. This could cause damage to the Doctor's table, defective function or accidents.

OPERATING INSTRUCTIONS

1-10. Micromotor (Optional)

This unit can be equipped with Bien Air's micromotor model MXII OPTIMA Touchpad.
It can be operated by following steps;

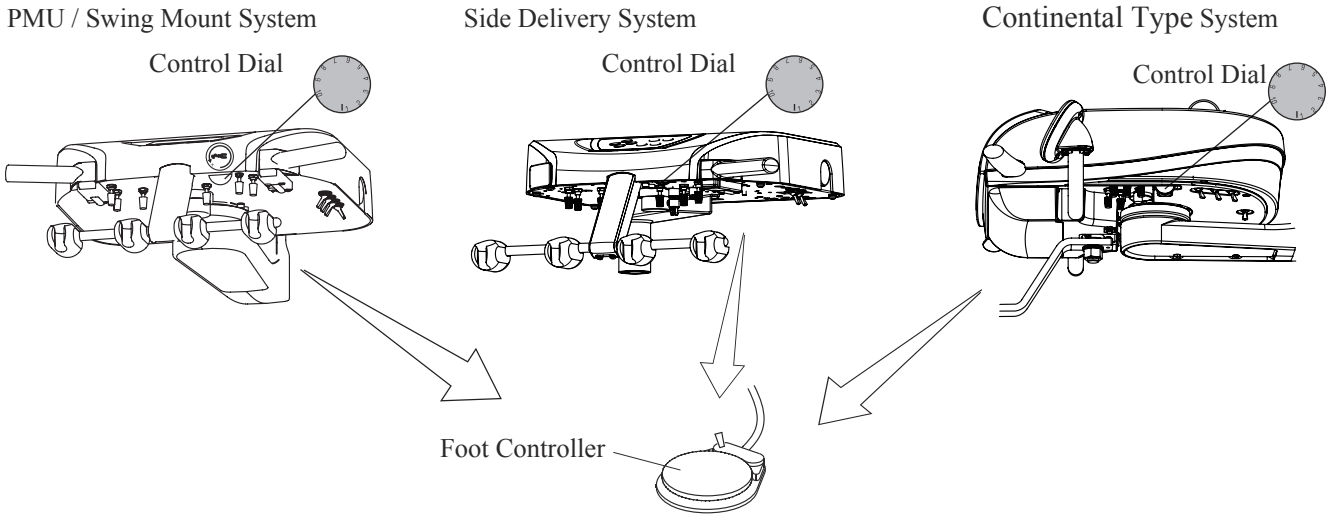
(1) Pick-up the micromotor from the handpiece holder
(2) Select operating mode by Touchpad
(3) Depress the Foot Control
For details, please refer to Operation Manual of MXII OPTIMA.



1-11. Ultrasonic Scaler (Optional)

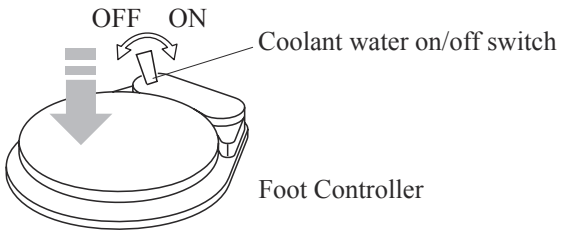
This unit can be equipped with Dentsply's ultrasonic scaler model CAVITRON.
It can be operated by following steps;

(1) Pick-up the scaler on the handpiece holder
(2) Adjust the power by the control dial
(3) Depress the Foot Control
For details, please refer to Operation Manual of CAVITRON.



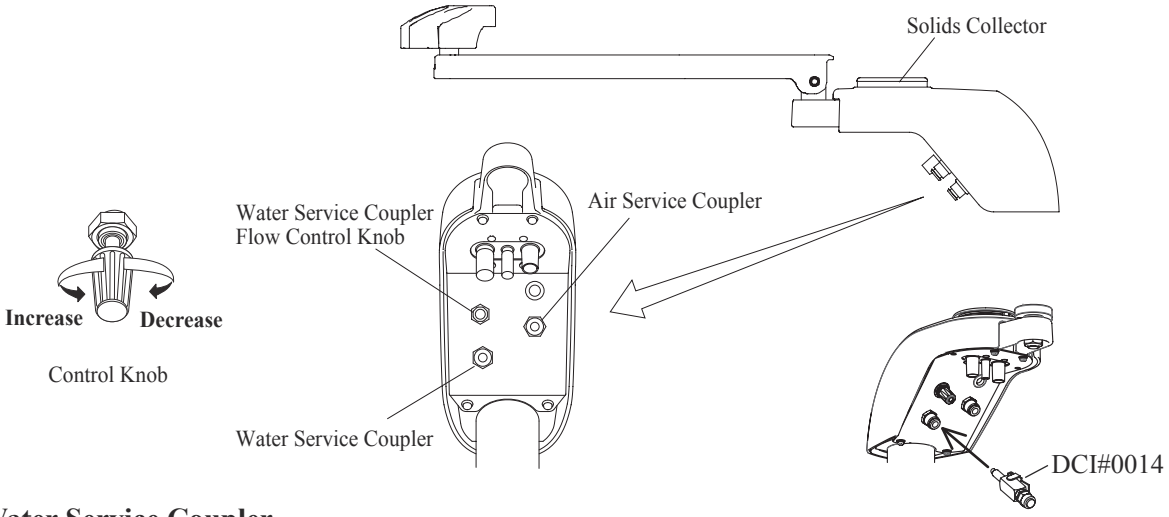
2. Foot Controller Section

Pick up a handpiece from the handpiece holder and depress the foot controller, the handpiece will start running. Put the coolant water on/off switch on, then water will be supplied when the handpiece runs.



OPERATING INSTRUCTIONS

3. Vac Pac Section (Assistant Instruments)



3-1. Water Service Coupler

The water service coupler provides a quick-connection and flow control for water. You can connect DCI #0014 to the service coupler.

3-2. Water Service Coupler Flow Control Knob

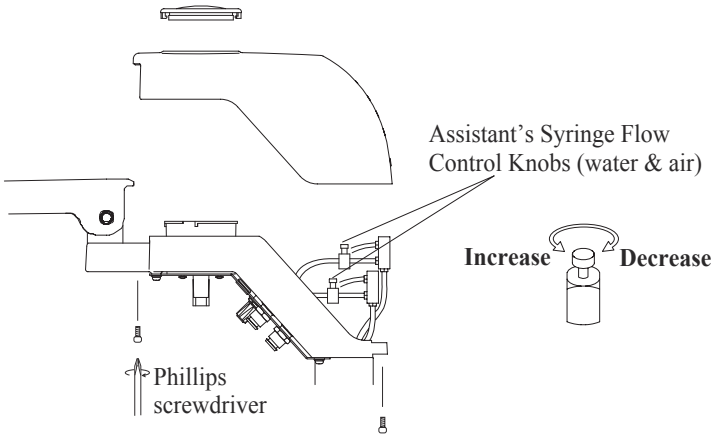
Outlet water volume can be adjusted by the service coupler flow control knob. Turning the knob counterclockwise increase the flow volume and turning clockwise decrease the volume.

3-3. Air Service Coupler

Service air outlet provides a quick-connection for air. You can connect DCI #0014 to the service coupler.

3-4. Assistant's Syringe Flow Control Knobs

Assistant's syringe flow control knobs are located inside the Vac Pac utility center. Turning the knob counterclockwise increase the flow volume and turning clockwise decrease the volume.



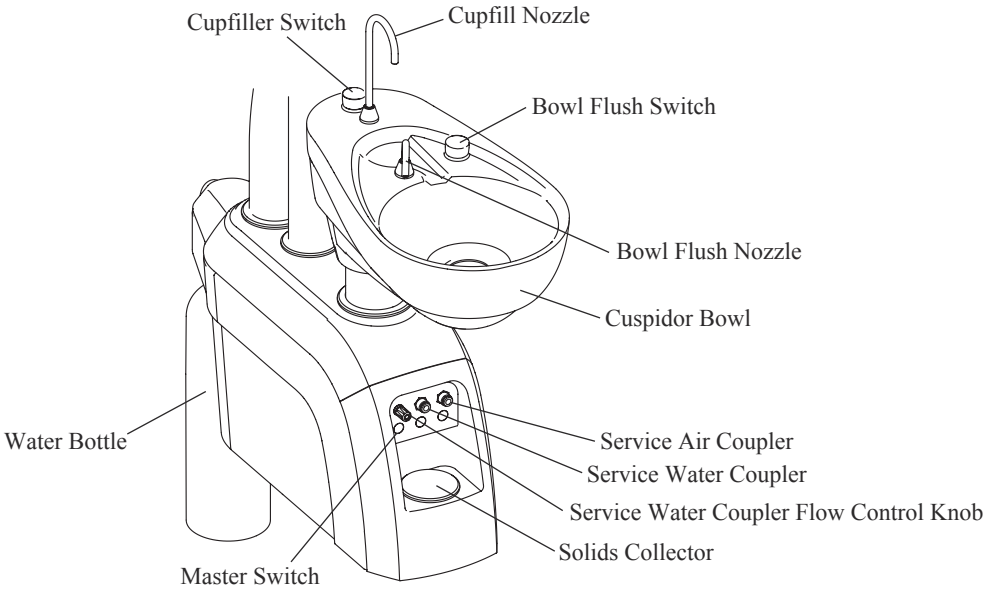
Note) Evogue Dental Unit does not include syringe tips. Syringe tips manufactured by DCI are compatible with this device.

NOTICE

Please be careful when connecting the insert DCI #0014 to the water coupler. Water comes out at the exact moment of inserting.

OPERATING INSTRUCTIONS

4. Cuspidor Section (Cuspidor with Assistant Instruments)



4-1. Master Switch (available only for the system without Doctor Table section)

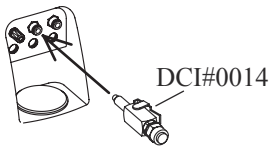
Turn on the Master Switch located in front of the Cuspidor.

⚠CAUTION

Turn off the Master Switch after daily operation and for long term interval. Be sure to operate switches with your hands. If operate with other than hands, it may cause damage or incorrect operation.

4-2. Water Service Coupler

The water service coupler provides a quick-connection and flow control for water. You can connect DCI #0014 to the service coupler.



4-3. Water Service Coupler Control Knob

Outlet water volume can be adjusted by the service coupler flow control knob.

Turning the knob counterclockwise will increase the flow volume and turning clockwise will decrease flow.

4-4. Air Service Coupler

Service air outlet provides a quick-connection for air.

4-5. Solids Collector

Solids Collector separates solids from water. (See Page 39)

4-6. Water Bottle

Water Bottle is provided for clean water system. (See Page 32)

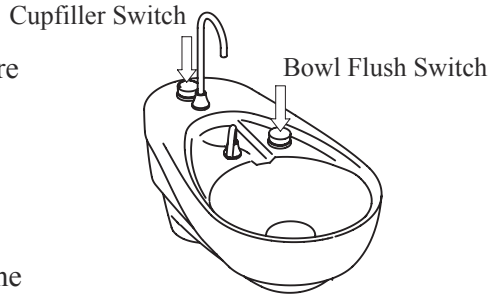
NOTICE

Please be careful when connecting the insert DCI #0014 to the water coupler. Water comes out at the exact moment of inserting.

OPERATING INSTRUCTIONS

4-7. Cupfiller Switch

Water is supplied while the cupfiller switch is depressed. Make sure that a cup is correctly placed. Confirm that the cupfill nozzle is properly positioned.

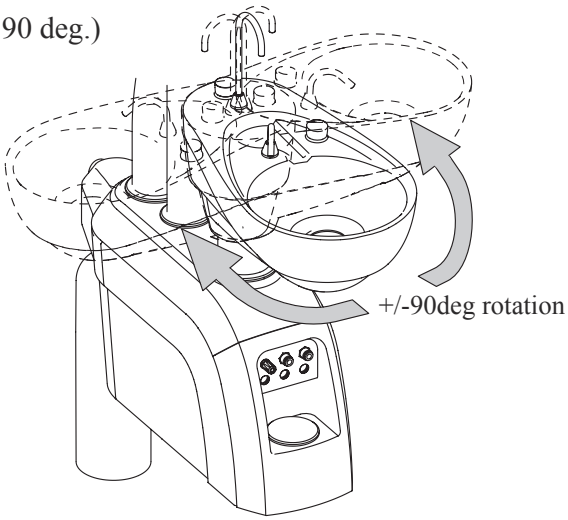


4-8. Bowl Flush Switch

Once the bowl flush switch is pressed, water will come out from the bowl flush nozzle for a certain period of time. Confirm that the cupfill nozzle is properly positioned.

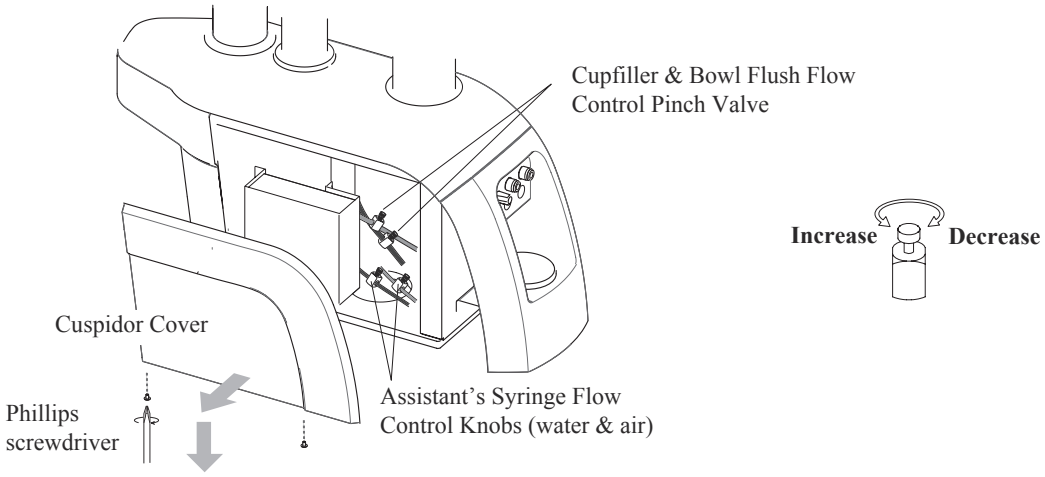
4-9. Spittoon Bowl Rotation

Spittoon Bowl rotate 180 deg. (inwards 90 deg., outwards 90 deg.) manually so that a patient wash the mouth smoothly.



4-10. Water and air flow control

Cupfiller, bowl flush and assistant's syringe flow-control pinch valves are located inside the cuspidor. Open the cuspidor side cover by loosening the screws. Adjust the water and air flow by the pinch valves.



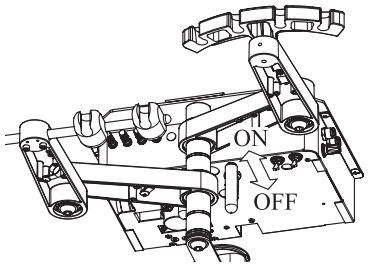
Note) Evogue Dental Unit does not include syringe tips. Syringe tips manufactured by DCI are compatible with this device.

OPERATING INSTRUCTIONS

5. Rear Delivery Section

5-1. Master Switch

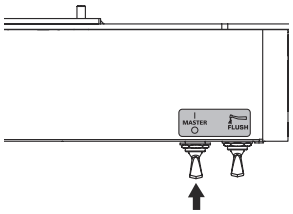
Turn on the master switch located under the doctor table.



⚠CAUTION

Turn off the master switch after daily operation and for long term interval. Be sure to operate switches with your hands. If operate with other than hands, it may cause damage or incorrect operation.

Confirm that the master switch is set at outside position.
Confirm that all of the handpieces are correctly set at the handpiece holders. If a handpiece is not set correctly, this may cause unexpected rotation of a handpiece. If a handpiece can't be set correctly, stop using the unit and contact our dealer or us.



5-2. Handpiece

The handpiece is actuated by picking it up from the handpiece holder and operating the foot controller.
Operation of the each handpieces, please refer to the manufacturer's instruction manual attached to the individual equipment.
Use the handpieces described in the list of compatible handpieces (Page 51) for this unit.

⚠CAUTION

Carefully read the handpieces' operating instruction manuals and related documents attached to each handpiece.

⚠CAUTION

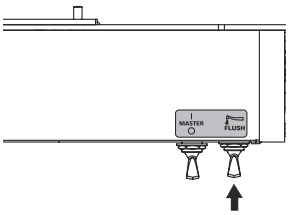
Carefully follow the handpiece manufacturer's installation recommendations.

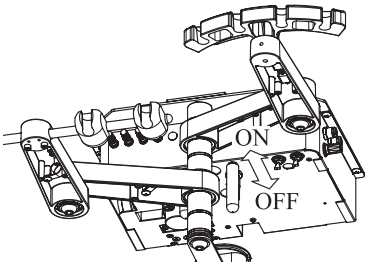
5-3. Fiber optic Light (Option)

The handpiece light will be activated by picking up a handpiece and by pressing a foot controller.
To use the handpiece light, you need to have an optional light pack and a handpiece with fiber optic light. You can use up to two handpieces with fiber optic light.

5-4. Flush Out

Turn on the switch to supply water to flush out the handpiece water.
(See details at Page 33)





OPERATING INSTRUCTIONS

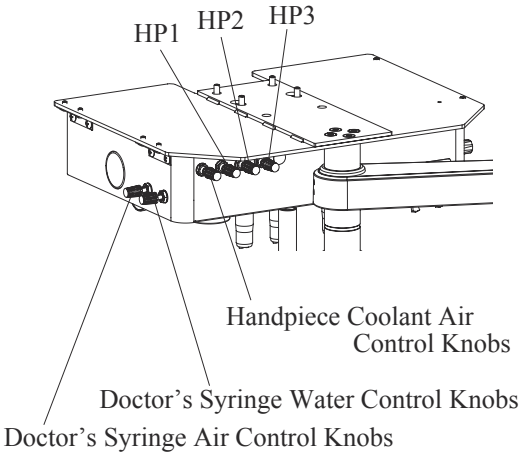
5-5. Rear Delivery Section Controls

(1) Handpiece Spray Water Control Knobs

The handpiece coolant water control knobs and coolant Air are located underneath the doctor table.

Each handpiece coolant water control knob is identified as number 1 to 3 from the left side HP1, HP2 and HP3.

The handpiece coolant water volume can be controlled independently.

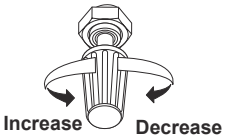


(2) Doctor's Syringe Flow Control Knobs

Doctor's syringe flow control knobs are located underneath the doctor table. The flow control knobs adjust the doctor's syringe air and water flow volume.

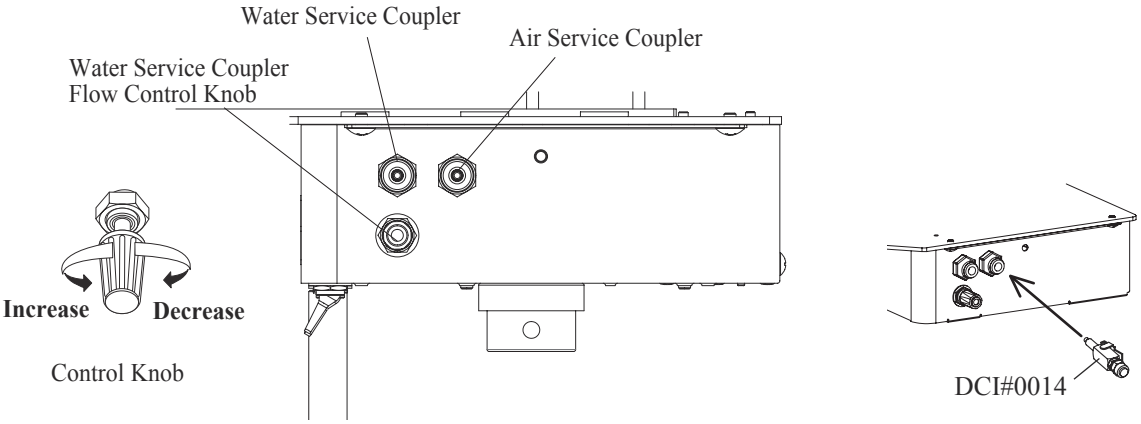
The yellow capped knob is the air flow control knob, the blue capped knob is the water flow control knob.

Turning the control knob counterclockwise will increase the flow volume and turning clockwise will decrease.



Control Knob

Note) Evogue Dental Unit does not include syringe tips. Syringe tips manufactured by DCI are compatible with this device.



5-6. Water Service Coupler

The water service coupler provides a quick-connection and flow control for water.

You can connect DCI #0014 to the service coupler.

5-7. Water Service Coupler Flow Control Knob

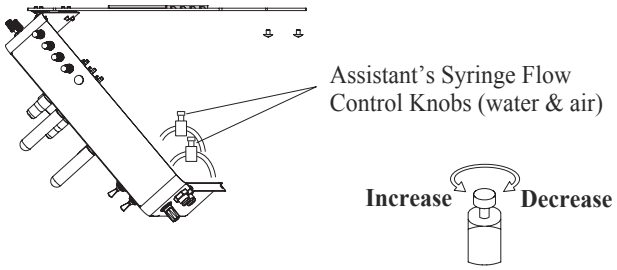
Outlet water volume can be adjusted by the service coupler flow control knob. Turning the knob counterclockwise increase the flow volume and turning clockwise decrease the volume.

5-8. Air Service Coupler

Service air outlet provides a quick-connection for air. You can connect DCI #0014 to the service coupler.

5-9. Assistant's Syringe Flow Control Knobs

Assistant's syringe flow control knobs are located inside the Vac Pac utility center. Turning the knob counterclockwise increase the flow volume and turning clockwise decrease the volume.



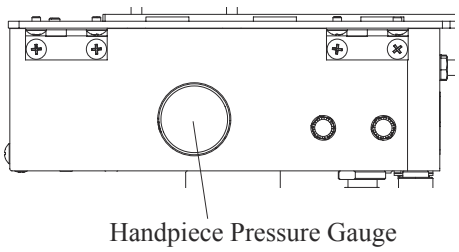
Note) Evogue Dental Unit does not include syringe tips. Syringe tips manufactured by DCI are compatible with this device.

NOTICE

Please be careful when connecting the insert DCI #0014 to the water coupler. Water comes out at the exact moment of inserting.

5-10. Handpiece pressure Gauge

Handpiece drive air pressure gauge is located in the doctor table. While a handpiece is working, the handpiece drive air pressure is indicated on the handpiece pressure gauge.

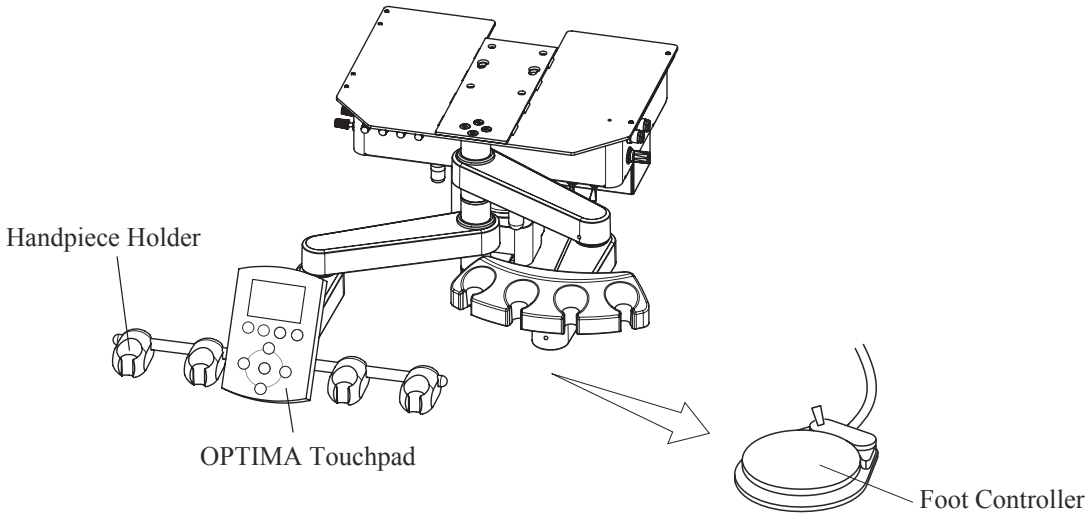


5-11. Micromotor (Optional)

This unit can be equipped with Bien Air's micromotor model MXII OPTIMA Touchpad.
It can be operated by following steps;

(1) Pick-up the micromotor from the handpiece holder
(2) Select operating mode by Touchpad
(3) Depress the Foot Control

For details, please refer to Operation Manual of MXII OPTIMA.

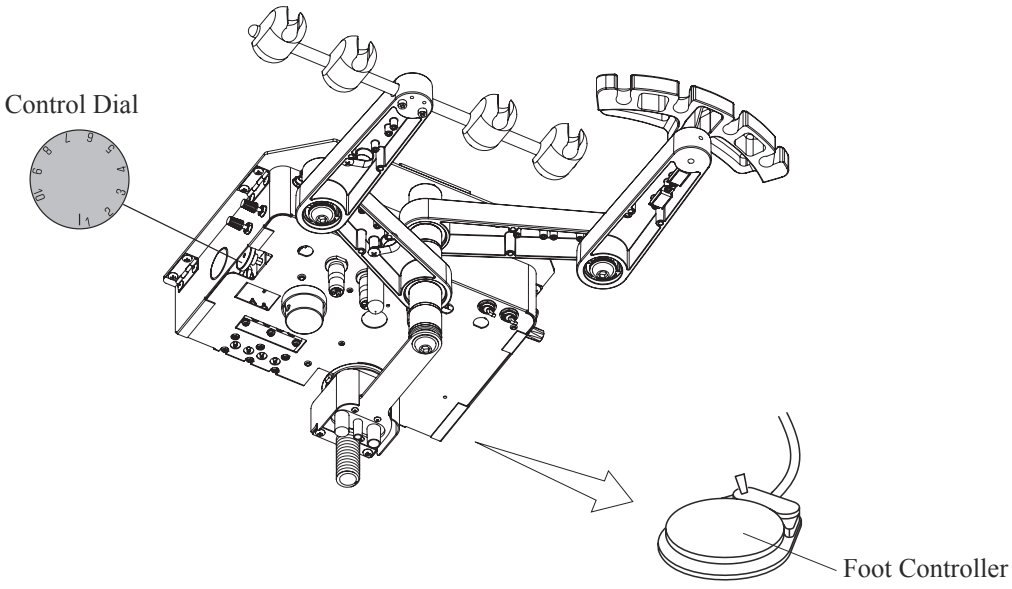


5-12. Ultrasonic Scaler (Optional)

This unit can be equipped with Dentsply's ultrasonic scaler model CAVITRON.
It can be operated by following steps;

(1) Pick-up the scaler on the handpiece holder
(2) Adjust the power by the control dial
(3) Depress the Foot Control

For details, please refer to Operation Manual of CAVITRON.

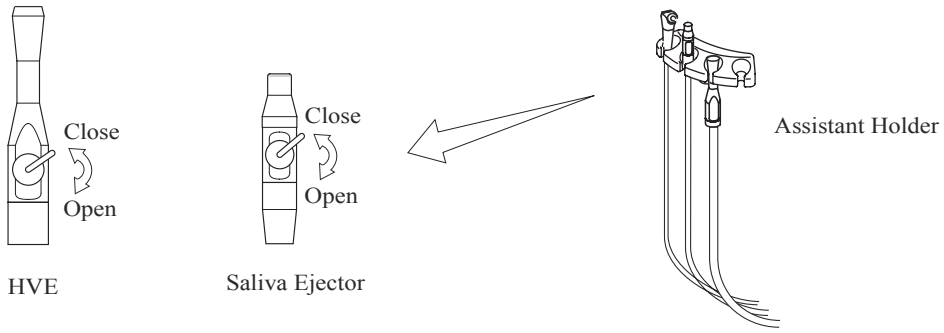


OPERATING INSTRUCTIONS

6. HVE and Saliva Ejector

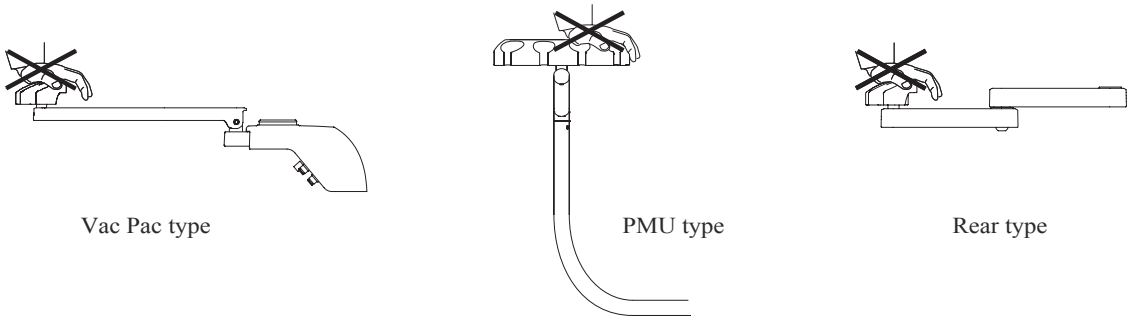
Pick up HVE and/or Saliva Ejector from the Assistant holder.

HVE and Saliva Ejector have a lever to open/close the valve and adjust suction power.



⚠ CAUTION

Do not put strong pressure on the Assistant holder section.



⚠ CAUTION

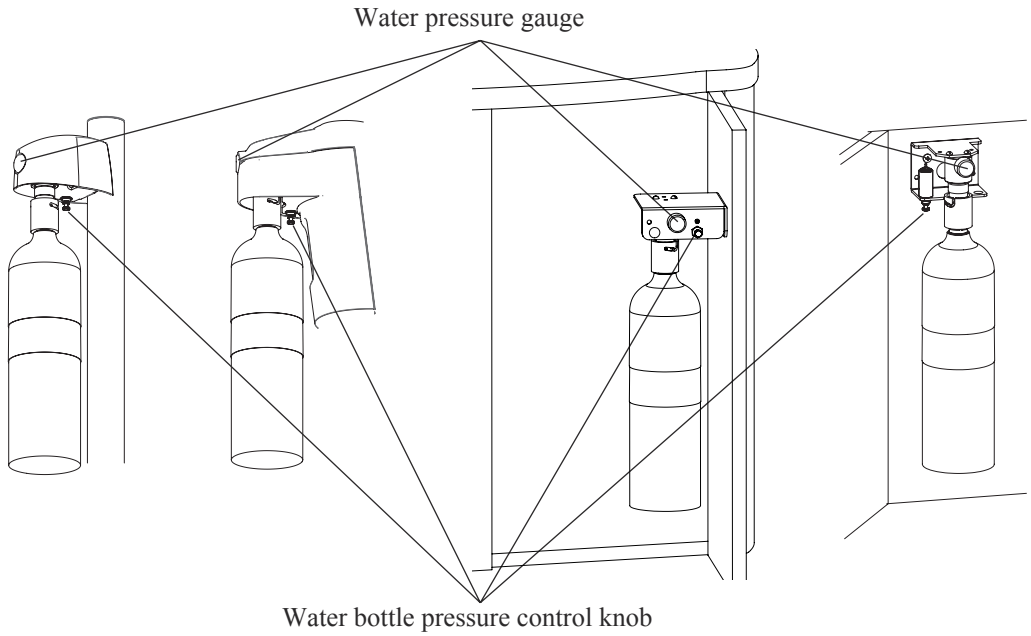
Be sure that the Assistant Holder or the handpieces are not to be attacked by the chair backrest when tilting the backrest.
This may cause unexpected injury or accident.

OPERATING INSTRUCTIONS

7. Clean Water System

Purified water, distilled water or pure water is supplied from the water bottle to handpieces and cupfiller. The water bottle pressure control knob adjusts the pressure of water bottle. The pressure increase when the knob is turned clockwise and decrease when the knob is turned counterclockwise.

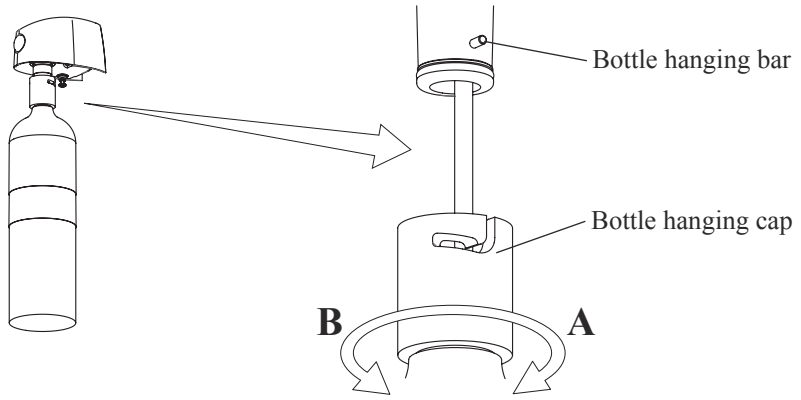
Swing Mount System PMU Mount System Side Delivery System Rear Delivery System



• How to fix and release the bottle

To fix ; Push the bottle up to catch the bottle hanging bar with the bottle hanging cap then rotate to “A” direction.

To release; First, make sure to switch off the Master Switch then confirm if the water pressure in the bottle remain zero looking at the pressure gauge. Second, rotate the bottle to “ B ” direction in order to release the bottle hanging bar then pull out the bottle down.



⚠CAUTION

- **The water tank is intended only for use with purified water, distilled water and pure water.**
- **Do not use mouthwash or electrolyzed water, as they may cause clogged tubing or affect internal valves and equipment.**
- **Adjust the air supply pressure for the water tank to 29 psi or less. An excessively high pressure may cause damage to the water tank.**

OPERATING INSTRUCTIONS

8. Flush Out

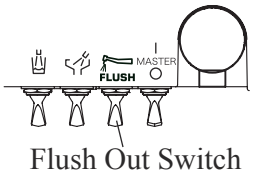
1) Handpiece line

Pick up the handpieces and from the holder and set them in a bucket, sink etc.

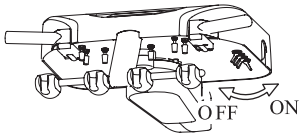
Turn on the flush out switch to flush out the handpiece water for approximately 40 seconds.

Eject water from a syringe by pressing the water button

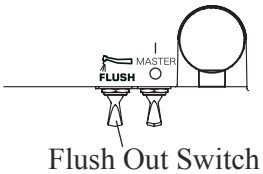
PMU / Swing Mount System



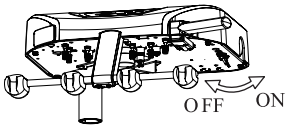
Flush Out Switch



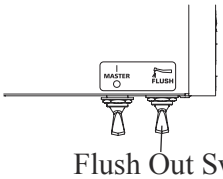
Side Delivery System



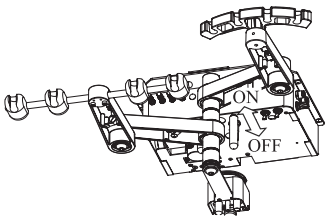
Flush Out Switch



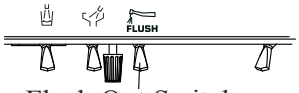
Rear Delivery System



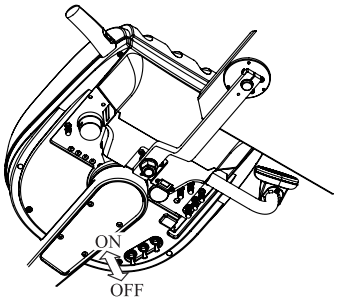
Flush Out Switch



Continental System



Flush Out Switch



Flush-out with the water bottle empty will purge out the water line with pressured air.
Several drops of water may come out from a handpiece, this can happen when water is not fully filled in the dental unit tubing, after water is emptied. This is not a failure. Water drop stops as water is filled in tubing.

⚠CAUTION

Perform flush out of the scaler with it attached to the main unit. Otherwise, a malfunction may be caused.

2) Cuspidor line

*Cupfiller water

Fill the water in the cup by the cupfill switch, then drain the water in the bowl to flushing out the cupfiller water.

Repeat it 7 to 8 times.

*Syringe

Pick up the Syringe then push the button of the Syringe water to flush out the Syringe water.

3) Vac Pac line

*Syringe

Pick up the Syringe then push the button of the Syringe water to flush out the Syringe water.

4) Rear Delivery line

*Syringe

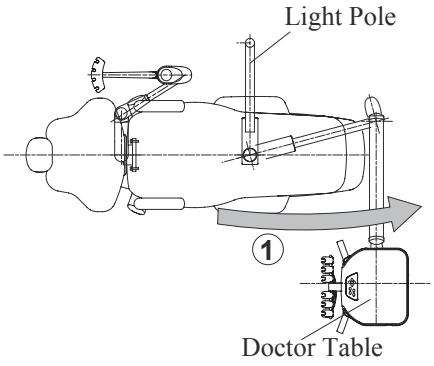
Pick up the Syringe then push the button of the Syringe water to flush out the Syringe water.

OPERATING INSTRUCTIONS

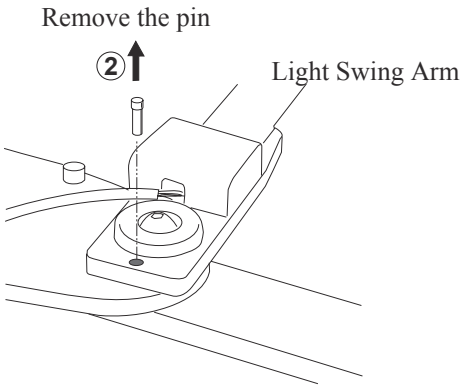
9. Right / Left Handed Dentistry Conversion (Available with Swing Arm Delivery)

Swing arms can be positioned on the left and right sides of the chair.

1. Move the doctor table to the following position.

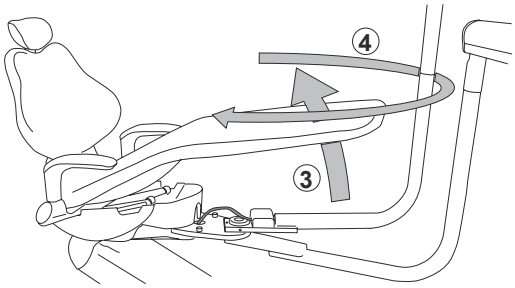


2. Remove locking pin on the light swing arm.

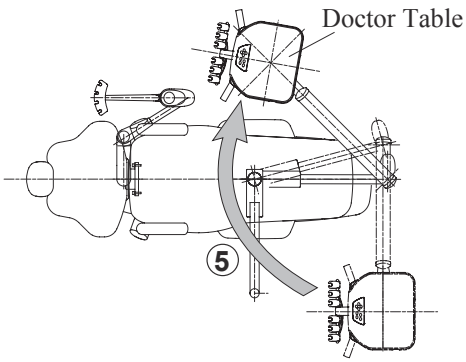


Note :Monitor mount arm does not need the locking pin

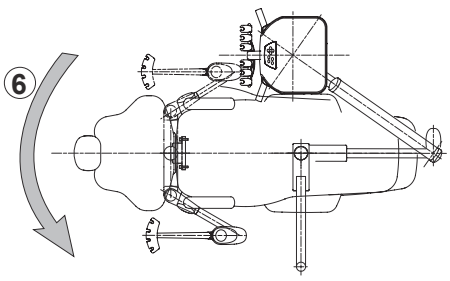
3. Lift the toe board of seat cushion and re-position the light and monitor swing arms on the other side of the chair.



4. Swing the doctor's table to the other side as shown below.

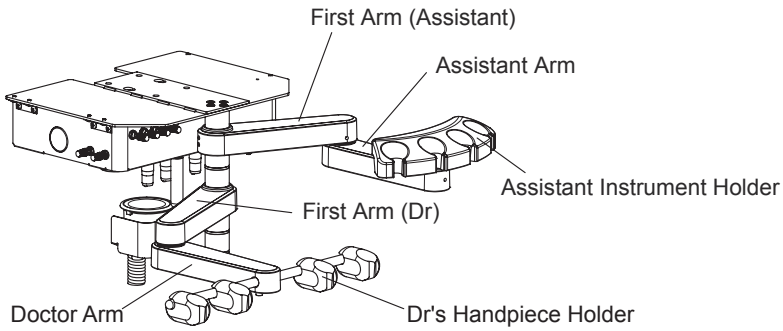


5. Swing the Vac Pac to the other side.

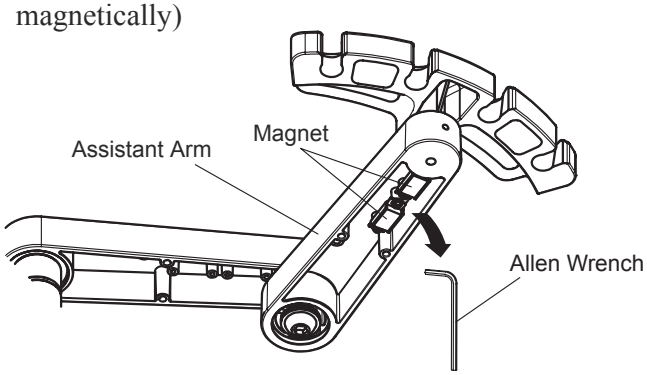


OPERATING INSTRUCTIONS

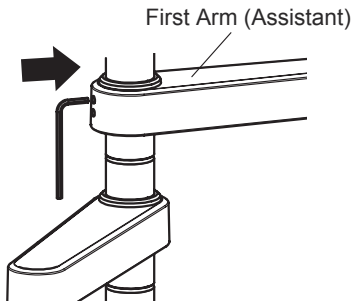
10. Doctor Arm / Assistant Arm Height Adjustment



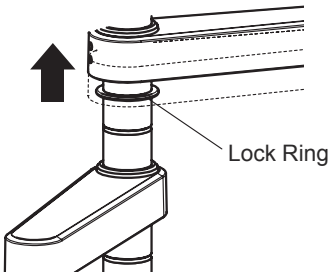
1. Take allen wrench out from underneath the assistant arm. (The allen wrench attached magnetically)



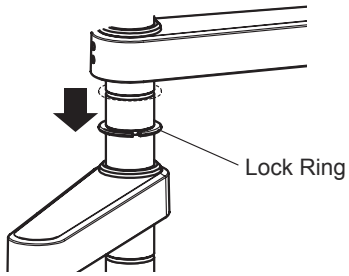
2. Loosen the (2) set screws on the first arm (Assistant) by using allen wrench.



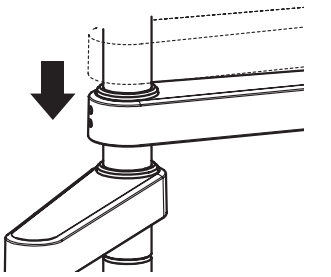
3. Lift up the first arm. (Assistant)



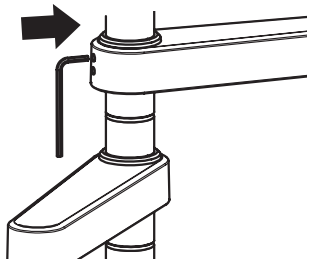
4. Slide down the lock ring.



5. Lower the first arm (Assistant) until arm hits the lock ring.

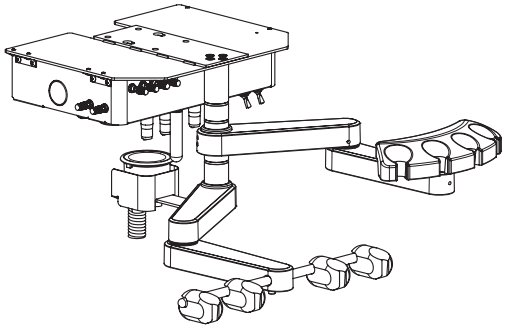


6. Tighten the (2) set screws on the first arm (Assistant) by using allen wrench.

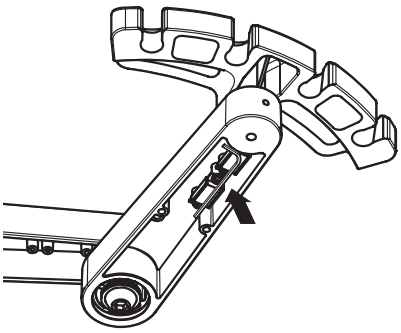


OPERATING INSTRUCTIONS

7. Adjust height of Doctor Arm by following the same procedures shown in 2 ~ 6.



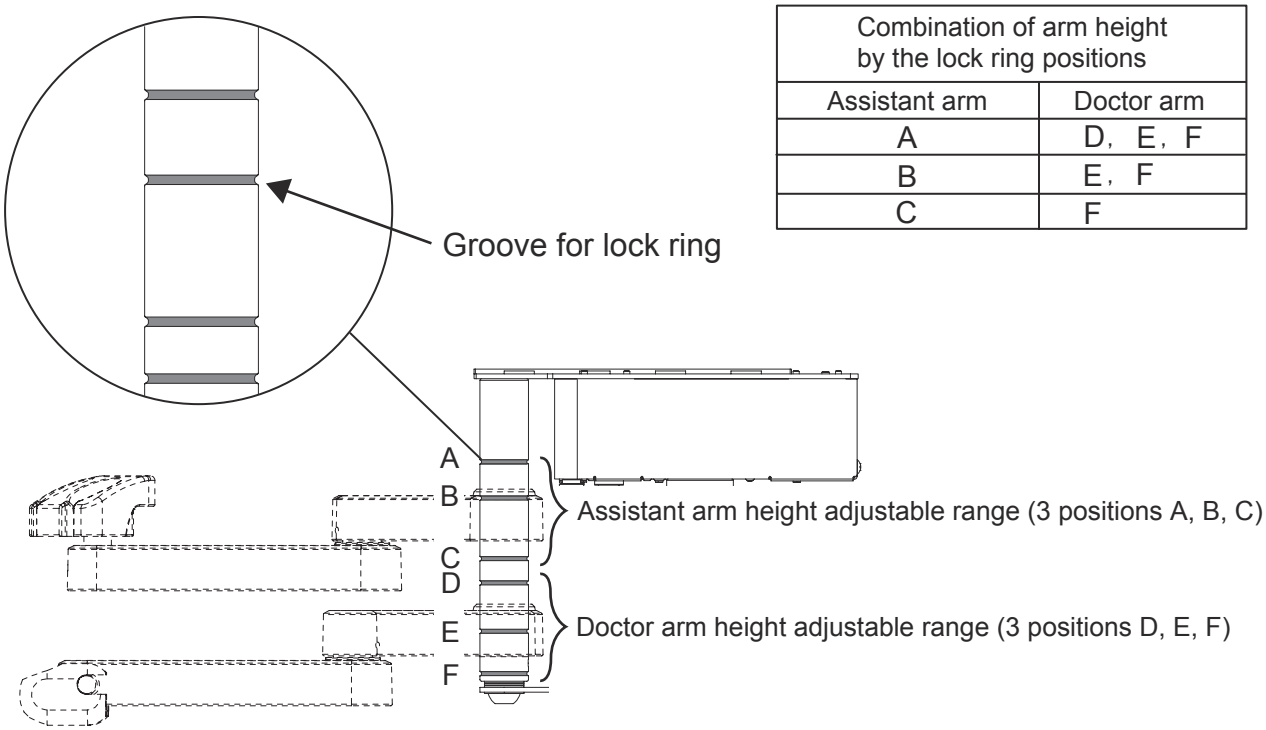
8.Re-attach the allen wrench to underneath the assistant arm.



Note : Arm height can be adjusted at 3 positions.
If one of the arms is adjusted, you may need to adjust another arm to avoid interference of arms.

⚠CAUTION

Combination of arm height by the lock ring positions	
Assistant arm	Doctor arm
A	D, E, F
B	E, F
C	F



Height of doctor arm and assistant arm can be adjusted as described above.
Can not swing both arms left and right correctly when the arms adjusted other than above mentioned and always observe the above combination of arm height for use.

OPERATION STOPPING FUNCTION

Chair motion stop function (safety function)

The safety mechanism that inhibits chair motion works while any of the following actions is taken.

*When any chair operation switch on the doctor control panel is depressed during automatic movement of the chair.

CARE AND MAINTENANCE

⚠CAUTION

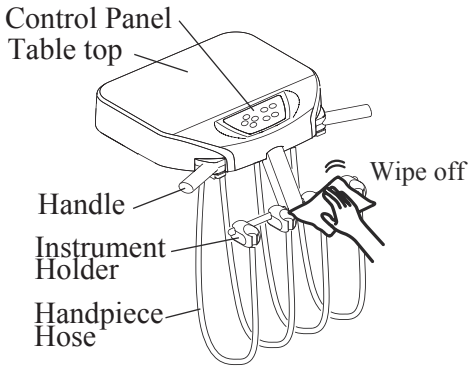
*** Turn the master switch OFF after daily operation and whenever operatory is unattended.**
*** Never use sandpaper, metal scrub brushes or abrasive cleaning agents to clean the unit.**
*** Do not use strongly acidic cleaning agents or alkaline pipe cleaning agents, which may cause corrosion of metals, etc.**

1. Doctor Table Section and Rear Table Section

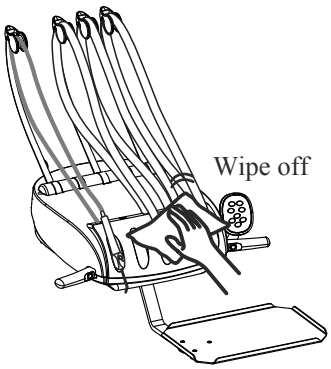
(1) Doctor Instrument Holder ; Table Top, Control Panel, Handle, Instrument Holder, Handpiece Hose

Do NOT spray directly

PMU / Swing Mount System

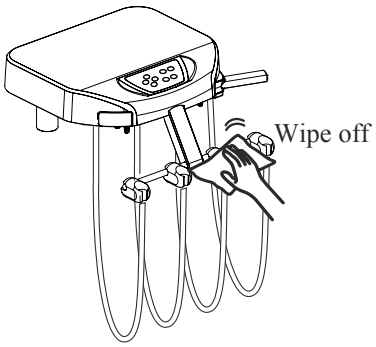


Continental System

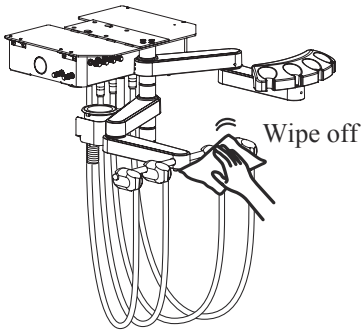


Spray to a soft cloth

Side Delivery System



Rear Delivery System



• Wipe off the surface with soft cloth moistened with cleaner or disinfectant. Wipe off with dry soft cloth to dried up after cleaning and disinfection.
• Use the cleaner and disinfectant OPTIM33TB made by SciCan.
Also, read carefully and observe instructions of cleaner or disinfectant before use.

⚠CAUTION

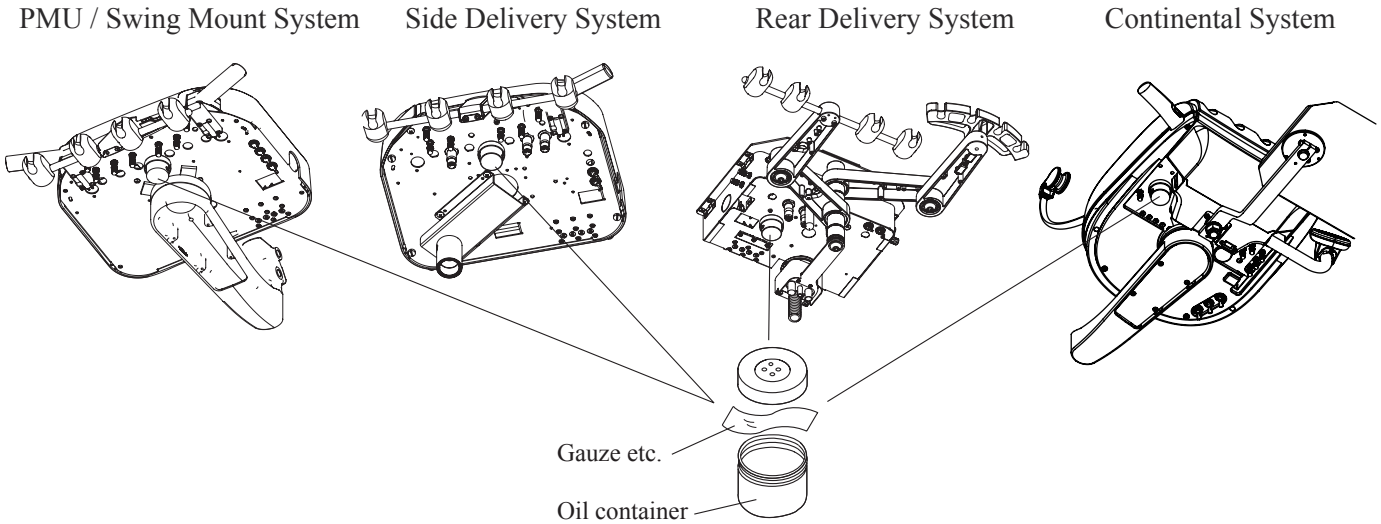
*** Do not spray liquids directly onto the surface of the table section.**
*** When the surface of the operation panel is cleaned with disinfectant, etc., wipe off disinfectant completely. If it penetrates into the back of the sheet, the membrane switches may malfunction.**
*** Penetration of droplets of disinfecting spray into the back of the operation panel may be associated with switch failure. Use a paper towel soaked with disinfecting solution to clean the surface of the operation panel.**

NOTICE

Observe the instructions given in the package insert and Instruction Manual included with the handpiece to clean it.

(2) Oil Mist Separator

Handpiece oil mist separator is located underneath the doctor table. The oil contained in the exhaust air of each handpiece is collected in this container. Remove the container then throw away the collected oil and oil absorbing material such as gauze in the container. This procedure is to be done regularly when the container is filled with the oil.



2. Vac Pac, Cuspidor, Rear Delivery Section, and Assistant Instrument Holder Section

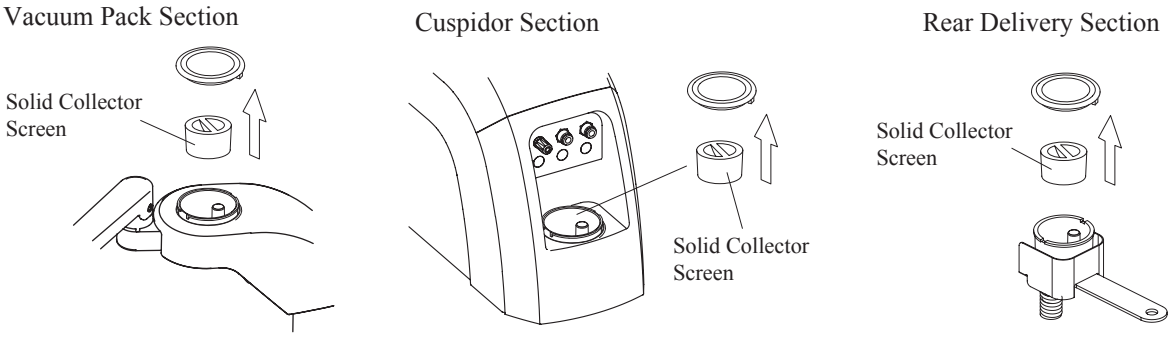
(1) Solids Collector

Clean solids collector filter daily for optimum performance.

Use personal protective equipment such as utility gloves, masks, and protective eyeware.

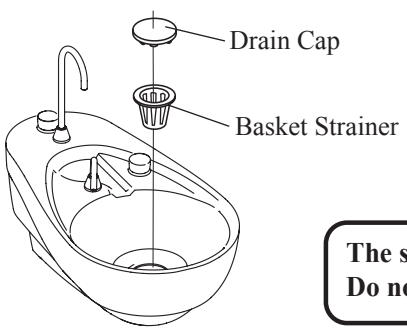
Remove the trap and empty the contents into a widemouthed, airtight, plastic container labeled Contact Amalgam Waste for Recycling. Ensure that the container is tightly sealed at all times.

When the container is full, send it to a recycler.



(2) Basket Strainer on Cuspidor Section

Take out the drain cap and the bracket strainer in centre of the cuspidor bowl and clean them.



⚠CAUTION

The spittoon bowl is made of ceramic. It may break if it is impacted. Do not wash it with hot water. Otherwise, it may break.

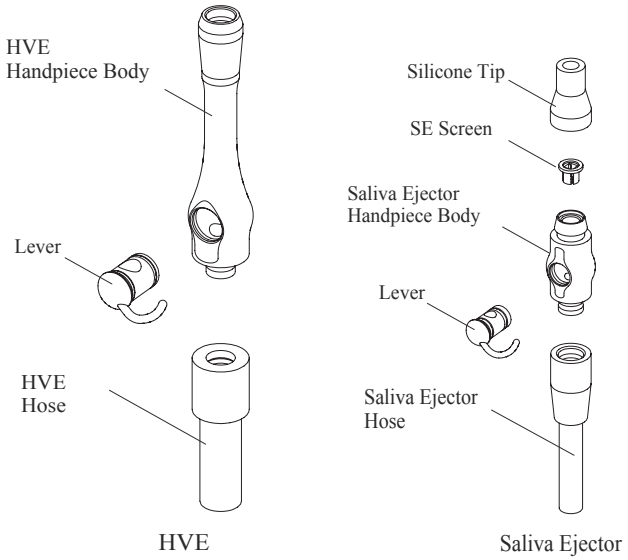
CARE AND MAINTENANCE

(3) HVE and Saliva Ejector

1) Pull out the HVE from the hose and clean it.

2) After daily operation, run two cups of clean water through the suction line to clean inside.

Note : After cleaning the HVE and Saliva Ejector, apply a white vaseline lightly on the rubber O-Rings to prevent damage to this O-Ring.



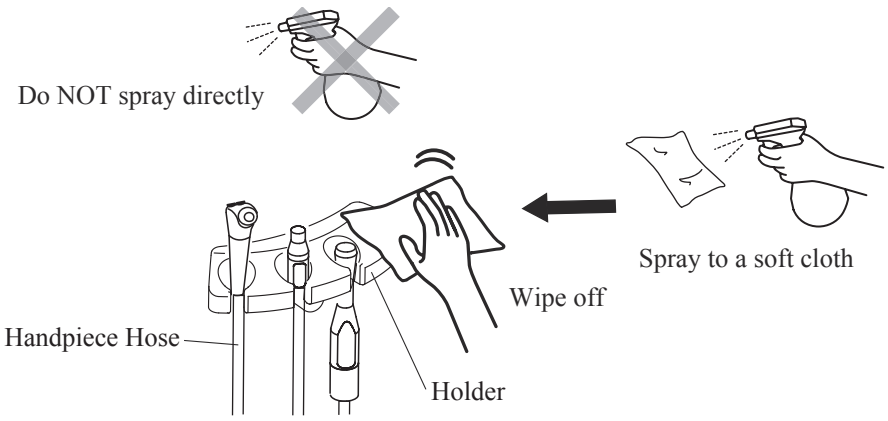
(4) Assistant Instrument Holder ; Holder, Handpiece Hose

Wipe off the holder surface with soft cloth moistened with cleaner or disinfectant. Wipe off with dry soft cloth to dried up of the holder after cleaning and disinfection.

Use the cleaner and disinfectant OPTIM33TB made by SciCan.

⚠CAUTION

Do not spray liquids directly onto the surfaces of the holder.



CARE AND MAINTENANCE

3. Product Exterior

Cleaning and Disinfection of product exterior

1) Clean the metallic parts with a dry soft cloth.
   Wipe off water immediately if water is put on the product. Water may cause rusting.
2) Clean the resin parts with a wet soft cloth.
3) Use OPTIM33TB made by SciCan for cleaning and bacteria elimination from the product exterior.

⚠CAUTION

*** Wipe off water and residual disinfectant immediately. This could cause corrosion, damage or incorrect operation of the unit.**

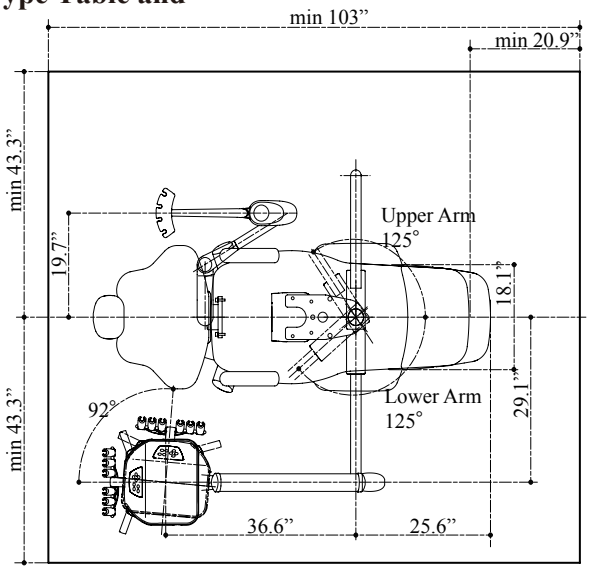
*** Immediately wipe off any water spills or leakage on the floor. This could cause damage to the product, decreased strength of the floor may lead to physical injury including fall, or property damage.**

DIMENSIONS AND SPECIFICATIONS

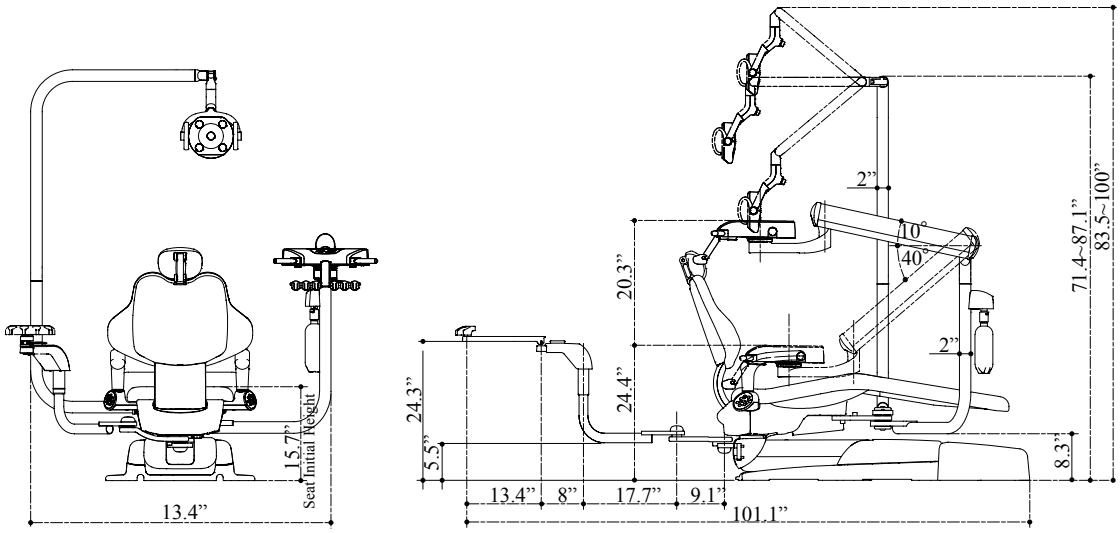
Swing Mounted Delivery System with Holder Type Table and Vac Pac and CLESTA Light(Quolis Chair)

Dimensions

- Inch
- Tolerance (± 10%)



Minimum dimension for change to right and left position excluding treatment space.



Specifications

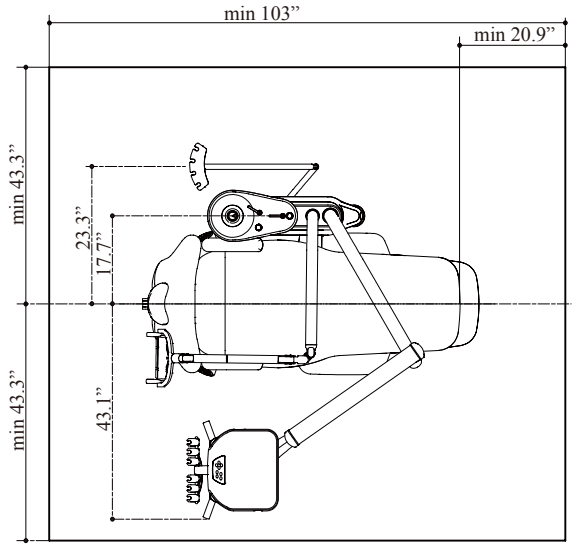
Power Consumption---------- AC120V 1.6A
Frequency---------- 60 Hz
Fuse value---------- M6AL, 250V (Fuse Size : ϕ 6.3 x 30 mm)
Dr’s control Net Weight---------- 44 lbs (20 kg)
Swing Arm Net Weight---------- 55 lbs (25 kg) (Without Dental Light)
Vacuum Pack Net Weight---------- 44 lbs (20 kg)
Junction Net Weight---------- 9 lbs (4 kg)
Doctor Table Maximum Load---------- 4.40 lbs (2 kg)
Operating Pressure---------- Water 29 psi (0.2 MPa), Air 75 psi (0.5 MPa)
Vacuum ---------- Minimum 200L/min.
Dental Light---------- CLESTA LED Dental Light
---------- BEL HALO Dental Light
Classification of foot controller---------- IPX1 (applicable standard IEC60529)
Protection class against electric shock---------- Class I equipment
Applied parts---------- Type B applied parts : Handpiece for unit
(List of compatible handpieces)
Service Life---------- 10 years

DIMENSIONS AND SPECIFICATIONS

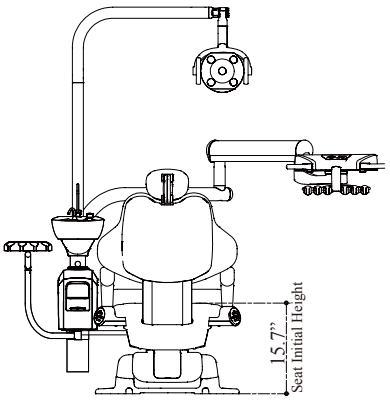
Over the Patient Delivery System with Holder Type Table and Cuspidor and CLESTALight (Quolis Chair)

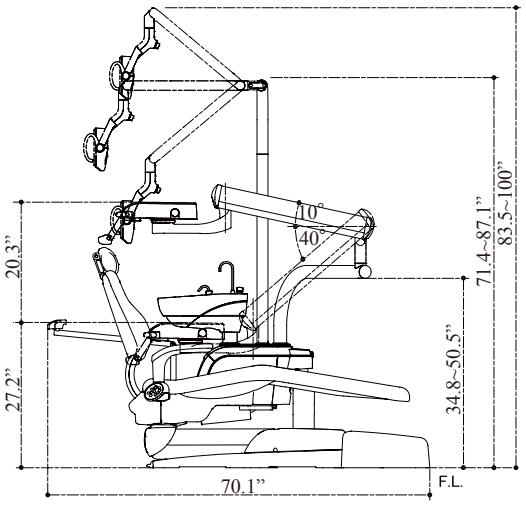
Dimensions

- Inch
- Tolerance ±10%-



Minimum dimension excluding treatment space





Specifications

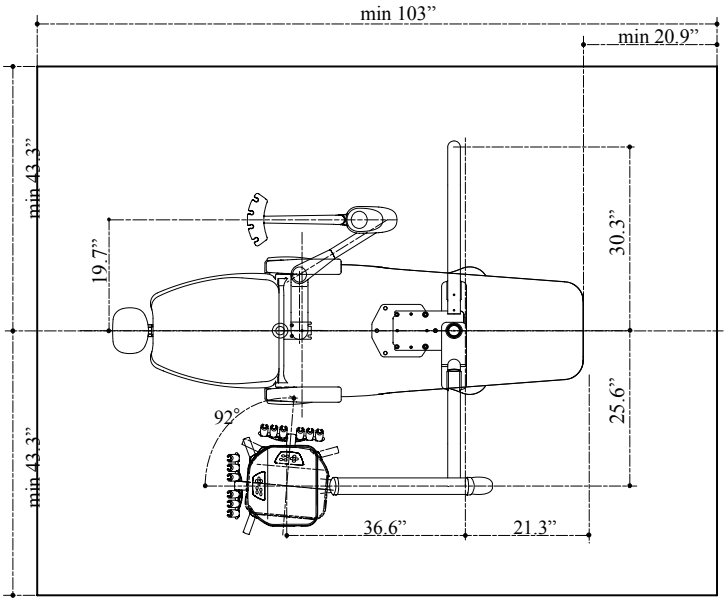
Power Consumption---------- AC120V 1.6A
Frequency---------- 60 Hz
Fuse value---------- M6AL, 250V (Fuse Size : ϕ 6.3 x 30 mm)
Dr’s control Net Weight---------- 44 lbs (20 kg)
Swing Arm Net Weight---------- 55 lbs (25 kg) (Without Dental Light)
Cuspidor Section Net Weight---------- 66 lbs (30 kg)
Junction Net Weight---------- 9 lbs (4 kg)
Doctor Table Maximum Load---------- 4.40 lbs (2 kg)
Operating Pressure---------- Water 29 psi (0.2 MPa), Air 75 psi (0.5 MPa)
Vacuum ---------- Minimum 200L/min.
Dental Light---------- CLESTA LED Dental Light
---------- BEL HALO Dental Light
Classification of foot controller---------- IPX1 (applicable standard IEC60529)
Protection class against electric shock---------- Class I equipment
Applied parts---------- Type B applied parts : Handpiece for unit
(List of compatible handpieces)
Service Life----------10 years

DIMENSIONS AND SPECIFICATIONS

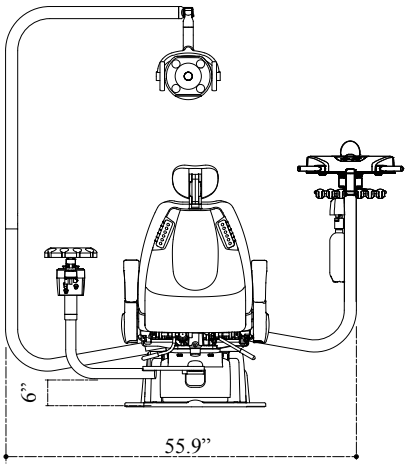
Swing Mounted Delivery System with Holder Type Table and Vac Pac and CLESTA LED Light (Bel-50 Chair)

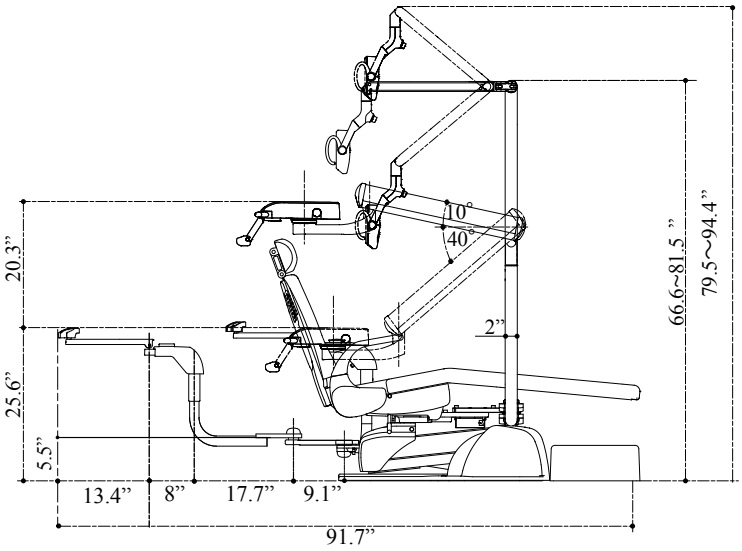
Dimensions

- Inch
- Tolerance ±10%-



Minimum dimension for change to right and left position excluding treatment space.





Specifications

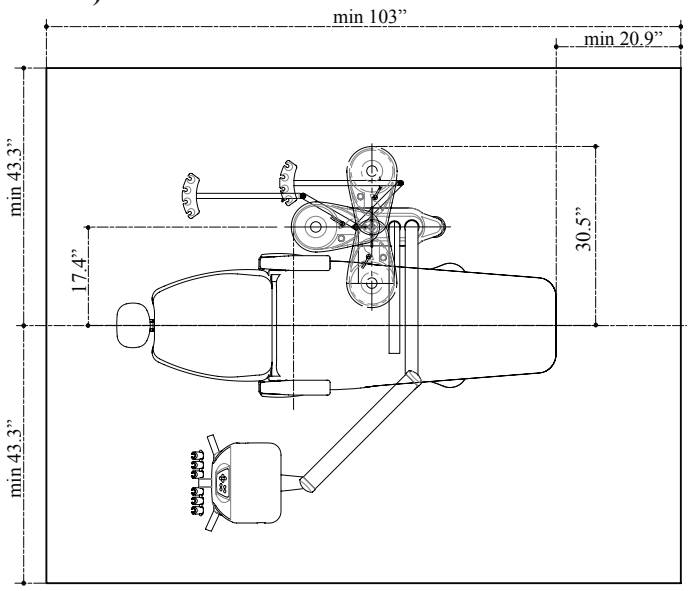
Power Consumption---------- AC120V 1.6A
Frequency---------- 60 Hz
Fuse value---------- M6AL, 250V (Fuse Size : ϕ 6.3 x 30 mm)
Dr’s control Net Weight---------- 44 lbs. (20 kg)
Swing Arm Net Weight---------- 55 lbs. (25 kg) (Without Dental Light)
Vacuum Pack Net Weight---------- 44 lbs. (20 kg)
Junction Net Weight---------- 9 lbs. (4 kg)
Doctor Table Maximum Load---------- 4.40 lbs. (2 kg)
Operating Pressure---------- Water 29 psi (0.2 MPa), Air 75 psi (0.5 MPa)
Classification of foot controller---------- IPX1 (applicable standard IEC60529)
Dental Light---------- CLESTA LED Dental Light
BEL HALO Dental Light
Protection class against electric shock---------- Class I equipment
Service Life---------- 10 years

DIMENSIONS AND SPECIFICATIONS

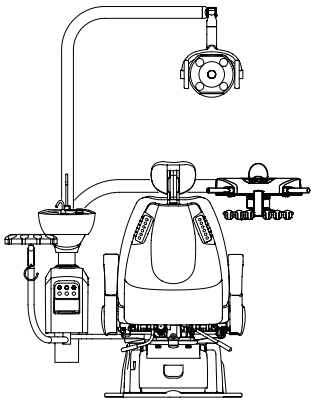
Over the Patient Delivery System with Holder Type Table and Cuspidor and CLESTA LED Light (Bel-50 Chair)

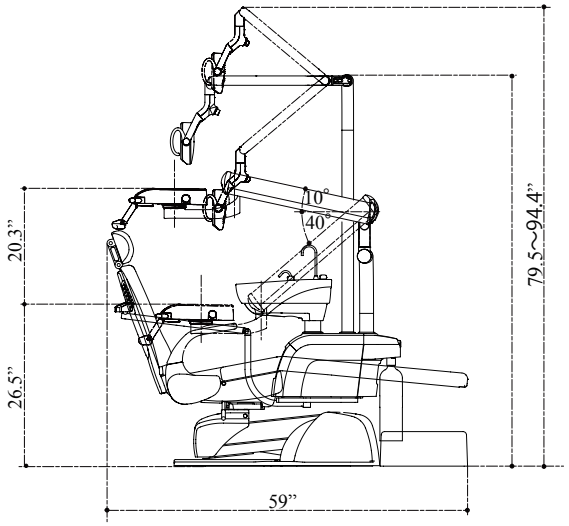
Dimensions

- Inch
- Tolerance ±10%-



Minimum dimension for change to right and left position excluding treatment space.





Specifications

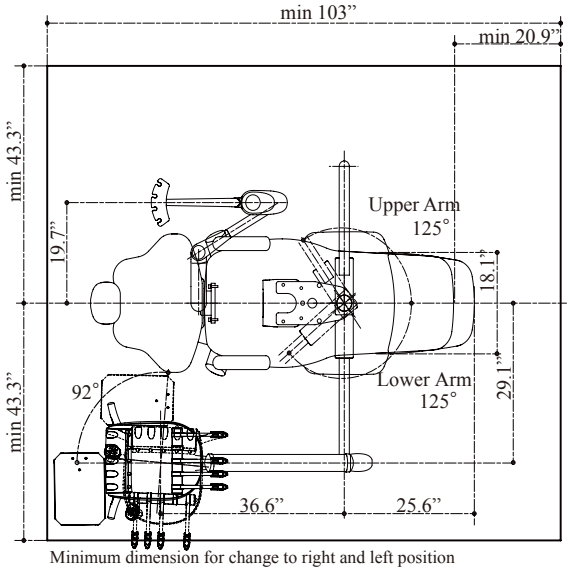
Power Consumption---------- AC120V 1.6A
Frequency---------- 60 Hz
Fuse value---------- M6AL, 250V (Fuse Size : ϕ 6.3 x 30 mm)
Dr’s control Net Weight---------- 44 lbs. (20 kg)
Swing Arm Net Weight---------- 55 lbs. (25 kg) (Without Dental Light)
Cuspidor Section Net Weight---------- 66 lbs. (30 kg)
Junction Net Weight---------- 9 lbs. (4 kg)
Doctor Table Maximum Load---------- 4.40 lbs. (2 kg)
Operating Pressure---------- Water 29 psi (0.2 MPa), Air 75 psi (0.5 MPa)
Classification of foot controller---------- IPX1 (applicable standard IEC60529)
Dental Light---------- CLESTA LED Dental Light
BEL HALO Dental Light
Protection class against electric shock---------- Class I equipment
Service Life---------- 10 years

DIMENSIONS AND SPECIFICATIONS

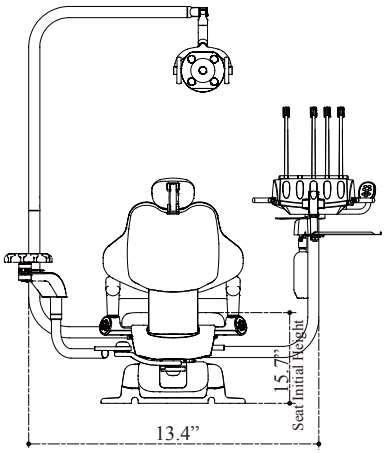
Swing Mounted Delivery System with Continental Type Table and Vac Pac and CLESTA Light(Quolis Chair)

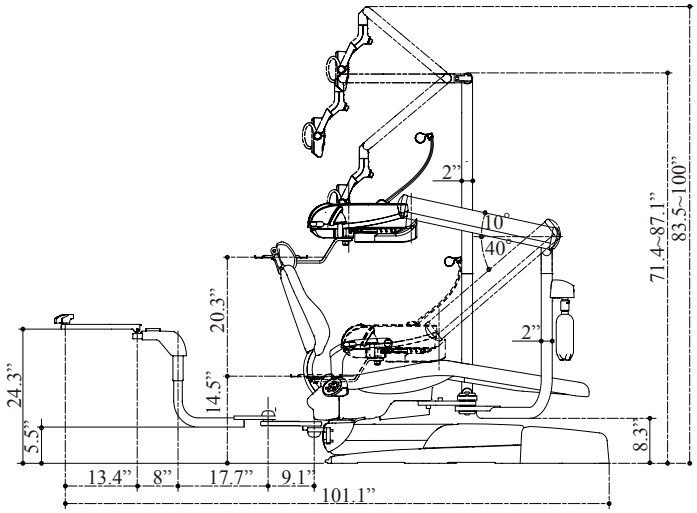
Dimensions

- Inch
- Tolerance (± 10%)



Minimum dimension for change to right and left position excluding treatment space.





Specifications

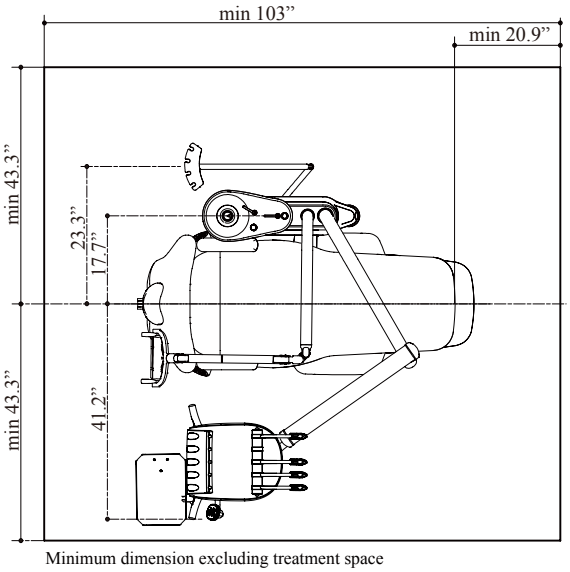
Power Consumption---------- AC120V 1.6A
Frequency---------- 60 Hz
Fuse value---------- M6AL, 250V (Fuse Size : ϕ 6.3 x 30 mm)
Dr’s control Net Weight---------- 57 lbs (26 kg)
Swing Arm Net Weight---------- 55 lbs (25 kg) (Without Dental Light)
Vacuum Pack Net Weight---------- 44 lbs (20 kg)
Junction Net Weight---------- 9 lbs (4 kg)
Doctor Table Maximum Load---------- 4.40 lbs (2 kg)
Operating Pressure---------- Water 29 psi (0.2 MPa), Air 75 psi (0.5 MPa)
Vacuum ---------- Minimum 200L/min.
Dental Light---------- CLESTA LED Dental Light
---------- BEL HALO Dental Light
Classification of foot controller---------- IPX1 (applicable standard IEC60529)
Protection class against electric shock---------- Class I equipment
Applied parts---------- Type B applied parts : Handpiece for unit
(List of compatible handpieces)
Service Life---------- 10 years

DIMENSIONS AND SPECIFICATIONS

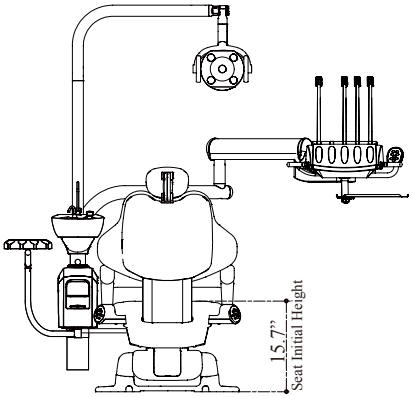
Over the Patient Delivery System with Continental Type Table and Cuspidor and CLESTALight (Quolis Chair)

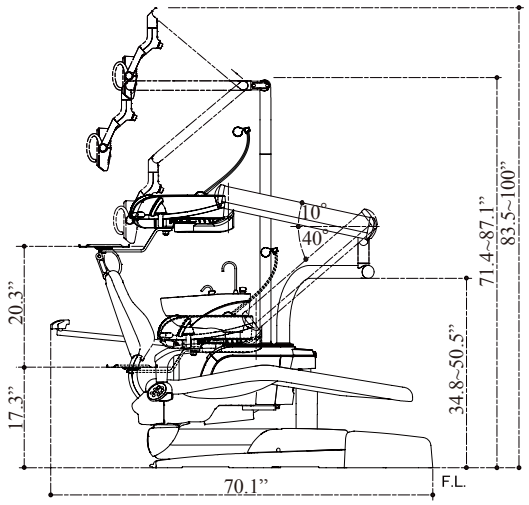
Dimensions

- Inch
- Tolerance ±10%-



Minimum dimension excluding treatment space





Specifications

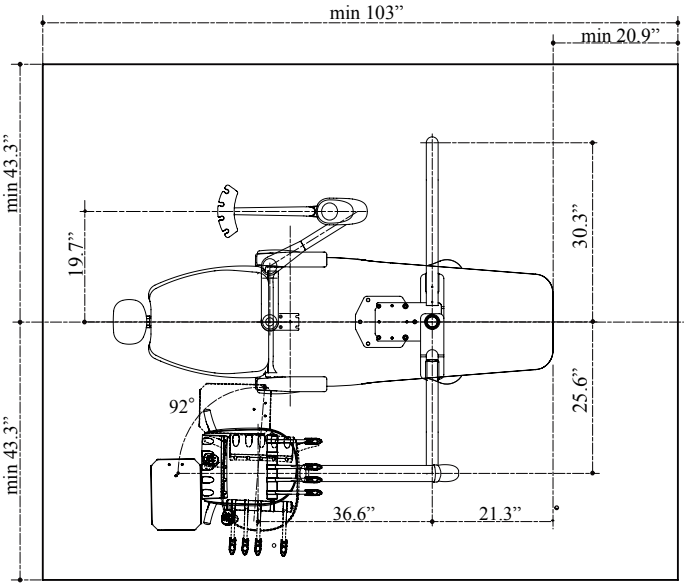
Power Consumption---------- AC120V 1.6A
Frequency---------- 60 Hz
Fuse value---------- M6AL, 250V (Fuse Size : ϕ 6.3 x 30 mm)
Dr’s control Net Weight---------- 57 lbs (26 kg)
Swing Arm Net Weight---------- 55 lbs (25 kg) (Without Dental Light)
Cuspidor Section Net Weight---------- 66 lbs (30 kg)
Junction Net Weight---------- 9 lbs (4 kg)
Doctor Table Maximum Load---------- 4.40 lbs (2 kg)
Operating Pressure---------- Water 29 psi (0.2 MPa), Air 75 psi (0.5 MPa)
Vacuum ---------- Minimum 200L/min.
Dental Light---------- CLESTA LED Dental Light
---------- BEL HALO Dental Light
Classification of foot controller---------- IPX1 (applicable standard IEC60529)
Protection class against electric shock---------- Class I equipment
Applied parts---------- Type B applied parts : Handpiece for unit
(List of compatible handpieces)
Service Life----------10 years

DIMENSIONS AND SPECIFICATIONS

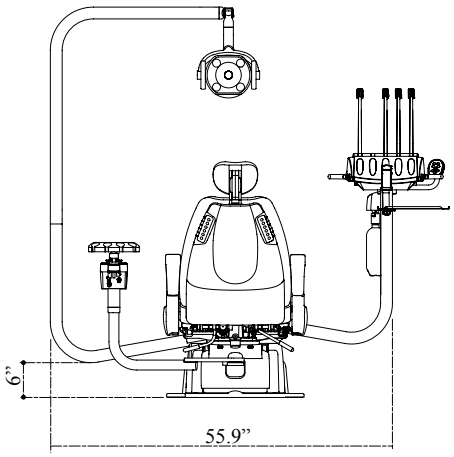
Swing Mounted Delivery System with Continental Type Table and Vac Pac and CLESTA LED Light (Bel-50 Chair)

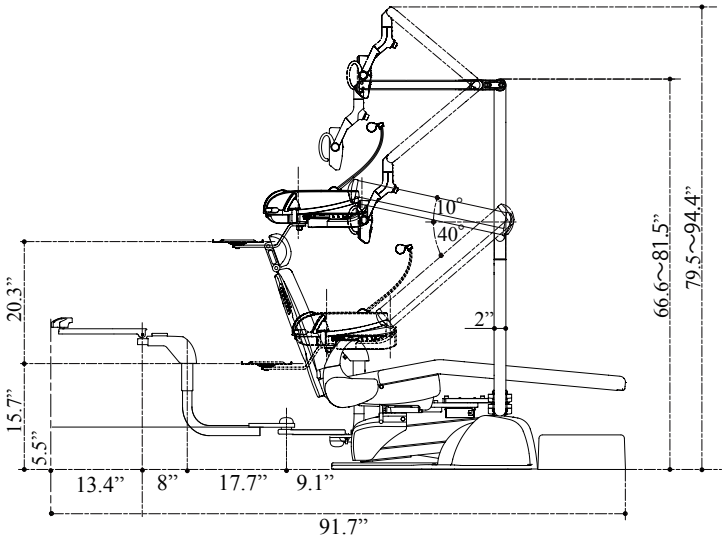
Dimensions

- Inch
- Tolerance ±10%-



Minimum dimension for change to right and left position excluding treatment space.





Specifications

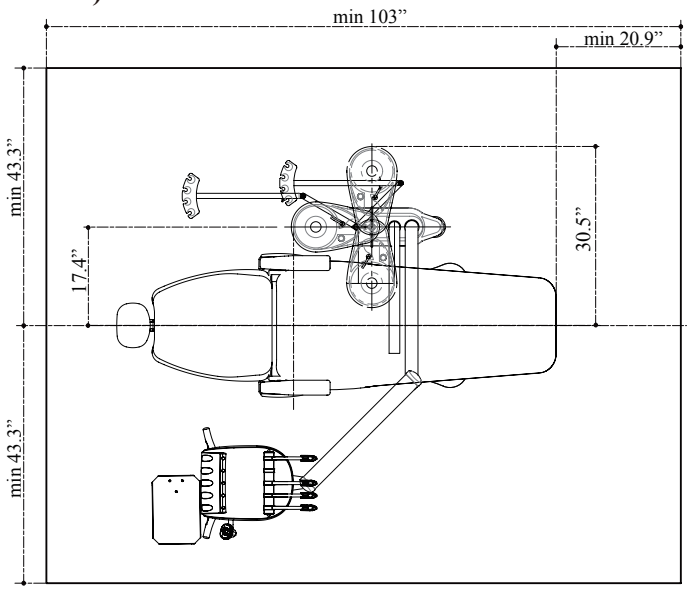
Power Consumption---------- AC120V 1.6A
Frequency---------- 60 Hz
Fuse value---------- M6AL, 250V (Fuse Size : ϕ 6.3 x 30 mm)
Dr’s control Net Weight---------- 57 lbs. (26 kg)
Swing Arm Net Weight---------- 55 lbs. (25 kg) (Without Dental Light)
Vacuum Pack Net Weight---------- 44 lbs. (20 kg)
Junction Net Weight---------- 9 lbs. (4 kg)
Doctor Table Maximum Load---------- 4.40 lbs. (2 kg)
Operating Pressure---------- Water 29 psi (0.2 MPa), Air 75 psi (0.5 MPa)
Classification of foot controller---------- IPX1 (applicable standard IEC60529)
Dental Light---------- CLESTA LED Dental Light
BEL HALO Dental Light
Protection class against electric shock---------- Class I equipment
Service Life---------- 10 years

DIMENSIONS AND SPECIFICATIONS

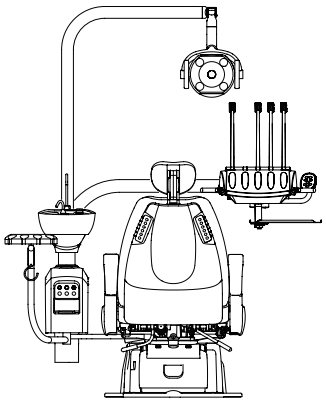
Over the Patient Delivery System with Continental Type Table and Cuspidor and CLESTA LED Light (Bel-50 Chair)

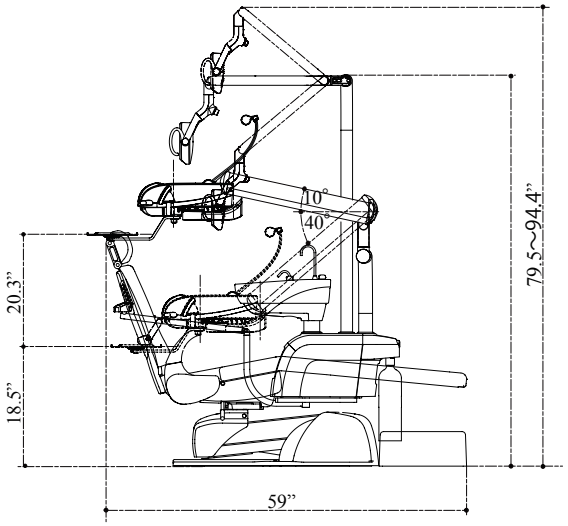
Dimensions

- Inch
- Tolerance ±10%-



Minimum dimension for change to right and left position excluding treatment space.





Specifications

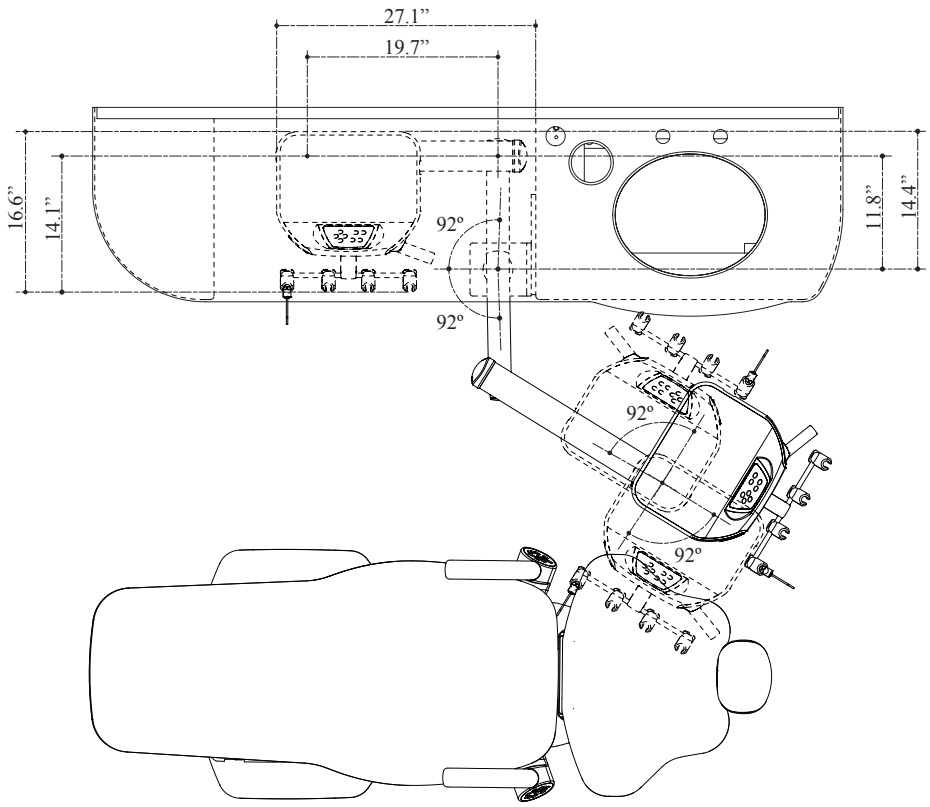
Power Consumption---------- AC120V 1.6A
Frequency---------- 60 Hz
Fuse value---------- M6AL, 250V (Fuse Size : ϕ 6.3 x 30 mm)
Dr’s control Net Weight---------- 57 lbs. (26 kg)
Swing Arm Net Weight---------- 55 lbs. (25 kg) (Without Dental Light)
Cuspidor Section Net Weight---------- 66 lbs. (30 kg)
Junction Net Weight---------- 9 lbs. (4 kg)
Doctor Table Maximum Load---------- 4.40 lbs. (2 kg)
Operating Pressure---------- Water 29 psi (0.2 MPa), Air 75 psi (0.5 MPa)
Classification of foot controller---------- IPX1 (applicable standard IEC60529)
Dental Light---------- CLESTA LED Dental Light
BEL HALO Dental Light
Protection class against electric shock---------- Class I equipment
Service Life---------- 10 years

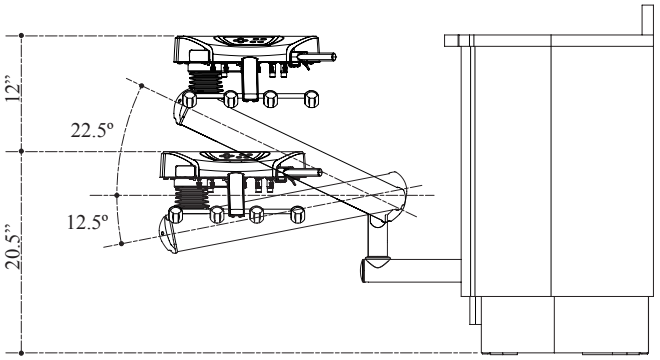
DIMENSIONS AND SPECIFICATIONS

Side Delivery System

Dimensions

- Inch
- Tolerance ±10%-





Specifications

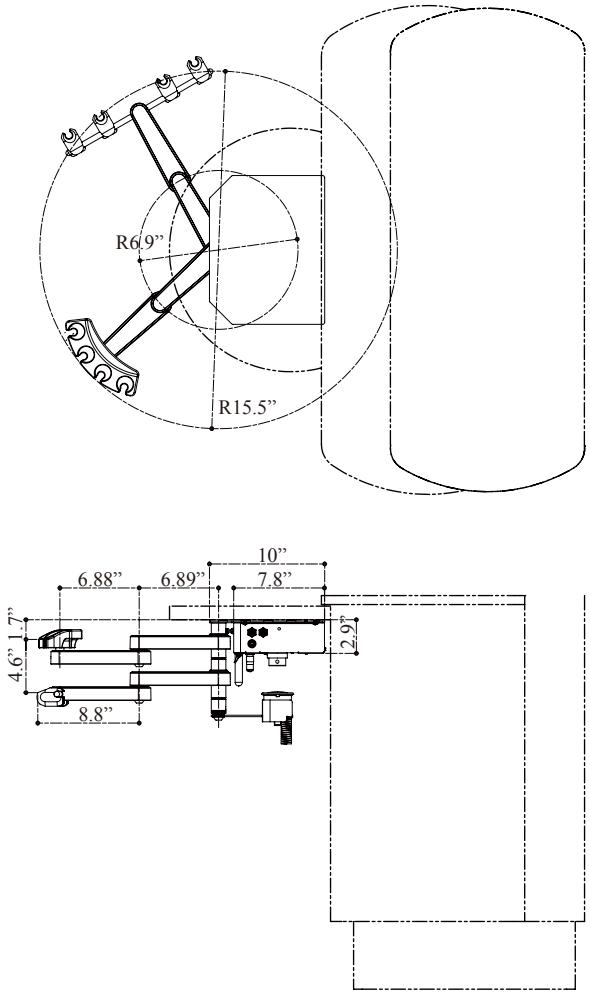
Power Consumption---------- AC120V 1.6A
Frequency---------- 60 Hz
Fuse value---------- M6AL, 250V (Fuse Size : ϕ 6.3 x 30 mm)
Side Delivery Net Weight---------- 54.0 lbs (24.5 kg)
Operating Pressure---------- Water 29 psi (0.2 MPa), Air 75 psi (0.5 MPa)
Classification of foot controller---------- IPX1 (applicable standard IEC60529)
Protection class against electric shock---------- Class I equipment
Applied parts---------- Type B applied parts : Handpiece for unit
Service Life----------10 years

DIMENSIONS AND SPECIFICATIONS

Rear Delivery System

Dimensions

- Inch
- Tolerance ±10%



Specifications

Power Consumption---------- AC120V 1.6A
Frequency---------- 60 Hz
Fuse value---------- M6AL, 250V (Fuse Size : ϕ 6.3 x 30 mm)
Rear Delivery Net Weight---------- 27.6 lbs (12.5 kg)
Operating Pressure---------- Water 29 psi (0.2 MPa), Air 75 psi (0.5 MPa)
Vacuum ---------- Minimum 200L/min.
Classification of foot controller---------- IPX1 (applicable standard IEC60529)
Protection class against electric shock---------- Class I equipment
Applied parts---------- Type B applied parts : Handpiece for unit
Service Life----------10 years

ELECTROMAGNETIC COMPATIBILITY (EMC)

ELECTROMAGNETIC COMPATIBILITY(EMC)

Medical electrical equipment needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in this manual.

Portable and mobile RF communications equipment can affect medical electrical equipment.

The equipment or system should not be used adjacent to or stacked with other equipment. If adjacent or stacked use is necessary, the equipment or system should be observed to verify normal operation in the configuration in which it will be used.

Guidance and manufacture's declaration – electromagnetic emissions		
The Evogue is intended for use in the electromagnetic environment specified below. The customer or the user of the Evogue should assure that it is used in such an environment.		
Emissions test	**Compliance**	**Electromagnetic environment - guidance**
RF emissions CISPR 11	Group 1	The Evogue uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The Evogue is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations/ Flicker emissions IEC 61000-3-3	Not applicable	

Guidance and manufacture's declaration – electromagnetic immunity			
The Evogue is intended for use in the electromagnetic environment specified below. The customer or the user of the Evogue 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 file. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	±2 kV for power supply lines ±1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV differential mode ±2 kV common mode	±1 kV differential mode ±2 kV common mode	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% U_T (>95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T) for 5 cycle 70% U_T (30% dip in U_T) for 25cycle <5% U_T (>95% dip in U_T) for 5 s	<5% U_T (>95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T) for 5 cycle 70% U_T (30% dip in U_T) for 25cycle <5% U_T (>95% dip in U_T) for 5 s	Mains power quality should be that of a typical commercial or hospital environment. If the user of the Evogue Unit requires continued operation during power mains interruptions, it is recommended that the Evogue Unit be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE U_T is the a.c. mains voltage prior to applications of the test level.			

ELECTROMAGNETIC COMPATIBILITY (EMC)

Guidance and manufacture's declaration – electromagnetic immunity

The Evogue is intended for use in the electromagnetic environment specified below. The customer or the user of the Evogue shoule assure that it is used in such as environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
			Portable and mobile RF communications equipment should be used no closer to any part of the Evogue Unit, including cables, than the recommended separation distance calculated from the equation applications to the Frequency of the transmitter. **Recommended separation distance**
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz outside ISM bands[a]	3 Vrms	$d = 1.2\sqrt{P}$
Radiated RF IEC 61000-4-3	3V/m 80 MHz to 2.5 GHz	3 V/m	$d = 1.2\sqrt{P}$ 80 MHz to 800 MHz $d = 2.3\sqrt{P}$ 800 MHz to 2.5 GHz 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 metres (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,[a] should be less than the compliance level in each frequency range.[b] Interference may occur in the vicinity of equipment marked with the following symbol: 

NOTE 1 At 80 MHz and 800MHz, the higher frequency range applies.

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

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 Evogue is used exceeds the applicable RF compliance level above, the Evogue shold be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the Evogue.

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

Essential performance (purpose of IMMUNITY testing)
Unless operated by the switches for chair control, the chair connected to the Evogue does not make any movements. Also unless operated by the foot controller, the handpieces do not work.
However the follwings are excluded; sounding a buzzer and switching on/off the indicator

ELECTROMAGNETIC COMPATIBILITY (EMC)

Recommended separation distances between
Portable and mobile RF communications equipment and the Evogue Unit

The Evogue is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Evogue can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Evogue 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** $d = 1.2\sqrt{P}$	**800 MHz to 2.5 GHz** $d = 2.3\sqrt{P}$
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 metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

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

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

LIST OF COMPATIBLE HANDPIECES

Type	Description
Syringe	DCI (3-way)
Air Turbine	NSK Ti-Max X
	NSK Pana-Max
Air Motor	NSK EX-203 / EX-6
Air Scaler	NSK Ti-Max
Micromotor	Bien Air MX2 / DMX2 PRO PCB. / OPTIMA
Ultrasonic Scaler	Dentsply Cavitron

LIST OF COMPATIBLE CHAIRS

Model	Description
B-50	X-Calibur V Dental Chair
Q-5000	Quolis 5000 Dental Chair

LIST OF COMPATIBLE DENTAL LIGHTS

Model	Description
320X	CLESTA LED Dental Light
920X	BEL HALO Dental Light

LIST OF COMPATIBLE DENTAL CABINET

Model
E-6
D-66CM
ECO-6
K-66

Model of Side Cabinet
ECO-1
D-1
D-4
E-4

BEFORE ASKING FOR REPAIRS

If any of phenomena described below has occurred, make the following checks before asking for repairs.

Phenomenon	Check point and result	Action to be taken
No power on the unit	Equipment circuit breaker in the clinic cabinet panel is not on.	Turn on the equipment circuit breaker.
	Air compressor power is not on.	Turn on the power.
Water is not supplied.	Confirm main water pressure gauge (Normal pressure = 29 psi)	Open the water shut off valve.
		Adjust the main water pressure.
No water from handpiece	Handpiece water adjustment knob is closed	Open the knob.
Turbine does not run	Confirm main air pressure gauge (Normal pressure = 75 psi)	Open the air shut off valve.
		Adjust the main air pressure.
	If air comes out from turbine hose.	Turbine failure (Refer to instruction manual of turbine)
No water or air from syringe	Syringe water or air adjustment knob is closed	Open the knob.
Vacuum suction / Saliva ejector does not suck	Lever is closed.	Open the lever.
	Handpiece filter is contaminated.	Clean the filter.
	Solids collector filter is contaminated.	Clean the filter.
	Power of the vacuum pump has not been turned on.	Turn on the power.

If the unit does not normally work even if actions were taken upon checkup stated above, then stop using the unit, turn off the main switch and contact your dealer or our office.

STORAGE METHOD

Strictly observe the following points when the product will not be used for a long period of time (following the completion of work, during the suspension of business, etc.).

1.Main switch

- Be sure to turn off the main switch at the end of each work day . (To stop supply of air, water, electric power, etc.)
- Strictly observe this instruction to prevent water leakage and electric accidents.

2. Water main valve

- Be sure to turn the main water valve clockwise to the close position at the end of each work day.

3. AIR main valve

- Be sure to turn the main air valve clockwise to the close position at the end of each work day.

4. Be sure to turn off the compressor breaker and then discharge air from the compressor. (Be sure to turn off the power.)

5. Be sure to turn off the vacuum pump breaker. (Be sure to turn off the power.)

6. Be sure to turn off the equipment breaker on the clinic's electrical panel. (Be sure to turn off the power.)

MAINTENANCE AND INSPECTION

Guide for daily maintenance and inspection (Maintenance and inspection by user)

- Management of maintenance and inspection of medical equipment should be implemented by the user (medical institution). In case the user does not implement such management, it is permitted that such management is outsourced to a qualified entity such as a medical equipment repair company.
- For safe use of this product, it is necessary that inspection should be conducted in the specified frequency on the items described below.

No.	Item	Frequency	Inspection method and diagnosis	Influence if inspection not conducted	Maintenance required in case of nonconformity
1	Check safety stopping function	Each day (before operation)	Confirm if the chair movement stops by any of the following actions. *when depress any operation switches of the chair during auto chair movement.	Unexpected injury or accident maybe caused by chair movement during treatment or pinching between Dr. Table and chair,	Contact our dealer or us if any abnormality arises.
2	Check pressure of water / air	Each day (before operation)	Check the water / air pressure reading the pressure gauges in the junction box. Default pressure setting : Water : 29 psi (0.2 MPa) Air : 75 psi (0.5 MPa)	The product malfunctions which may lead accidents etc.	Contact our dealer or us if the pressure cannot stay normal even after adjusting it.
3	Check leakage of water / air / oil	Each day (before operation)	Leakage of water, air or oil should not be observed around the product.	The product malfunctions which may lead accidents etc.	Contact our dealer or us if any abnormality arises.
4	Check condition of Dr. Table	Each day (before operation)	The table should not lean or drift.	Injury or trouble may occur if something falls down from the table.	Contact our dealer or us if any abnormality arises.
5	Check each operation switch	Each day (before operation)	The operation switchs should function correctly. *Refer to operation instruction of each switch.	The product malfunctions which may lead accidents etc.	Contact our dealer or us if any abnormality arises.
6	Check motion of air turbine / motor	Each day (before operation)	Rotation and spray of air turbine and air motor should work properly. See and follow the rating figure of each handpiece according to the instruction manual of it.	Troubles such as injury in patient's oral cavity and failure of handpiece may arise.	Adjust the water flow referring to page 21 Doctor Table Section Controls. Contact our dealer or us if the equipment still doesn't work properly after the adjustment .
7	Check motion of scaler	Each day (before operation)	Vibration and water flow of scaler should work properly.	Troubles such as injury in patient's oral cavity, burn injury by heat and failure of handpiece may arise.	Adjust the water flow referring to page 21 Doctor Table Section Controls. Contact our dealer or us if the equipment still doesn't work properly after the adjustment .
8	Check connection of handpiece	Each day (before operation)	Leakage of water or air should not be observed at the joint of handpiece and hose.	Troubles such as injury in patient's oral cavity, burn injury by heat and failure of handpiece may arise.	Turn off the master switch then reattach the handpiece. Contact our dealer or us if no improvement is found after the reattachment.
9	Check motion of syringe	Each day (before operation)	Water flow, air flow and spray should work properly.	Functions of syringe (drying, cooling and rising on the treatment area) will not work properly.	Adjust the water flow referring to page 21 Doctor Table Section Controls. Contact our dealer or us if the equipment still doesn't work properly after the adjustment.

MAINTENANCE AND INSPECTION

No.	Item	Frequency	Inspection method and diagnosis	Influence if inspection not conducted	Maintenance required in case of nonconformity
10	Vacuum handpiece	Each day (before operation)	Suction line can be operated (open/close) properly by the vacuum valve.	The power becomes weak to suction blood, water, saliva and other crumbs.	In case the valve become hard to open/close, clean the vacuum handpiece referring to page 40 Care and Maintenance. Contact our dealer or us if the equipment still doesn't work properly after the cleaning.
11	Saliva ejector handpiece	Each day (before operation)	Suction line can be operated (open/close) properly by the saliva ejector valve.	The power becomes weak to suction water, saliva etc.	In case the valve become hard to open/close, clean the saliva ejector handpiece referring to page 40 Care and Maintenance. Contact our dealer or us if the equipment still doesn't work properly after the cleaning.
12	Cupfiller	Each day (before operation)	Water is supplied through the cupfiller nozzle during cup filler switch is depressed.	Water is not supplied.	Contact our dealer or us if any abnormality arises.
13	Bowl flush	Each day (before operation)	Bowl flush supposed to function by pushing bowl flush button.	Bowl flush may not function properly.	Contact our dealer or us if any abnormality arises.
14	Other	Each day (before operation)	Abnormal noise, backlash or slip should not be appeared on the moving parts of the unit during operation.	The unit will malfunction which may cause an accident etc..	Contact our dealer or us if any abnormality arises.
15	Check air turbine and bar	Each patient (interval of every operation)	Appropriate bar shall be attached securely on a handpiece. Make sure to refer to the instruction manual of individual equipment.	The bar will malfunction which may cause an accident etc..	Should there be abnormalities on the bar such as scuff or deformation, replace the bar in accordance with the instruction manual of individual equipment.
16	Check scaler tip	Each patient (interval of every operation)	Appropriate tip shall be attached securely on a handpiece and operated correctly. Make sure to refer to the instruction manual of individual equipment.	The tip will malfunction which may cause an accident etc..	In case abrasion or deformation happen on the tip, replace the tip in accordance with the instruction manual of individual equipment. For the other troubles, contact our dealer or us.
17	Care exterior	Each day (after the last operation)	Chemical, filthy water and so forth shall not be found (attached or remaining) on the product exterior.	Discoloration and deterioration to the exterior, and corrosion and rusting to metalic components may arise.	Execute wiping in accordance with "Care and Maintenance" section of this manual.
18	Care solid collector	Each day (after the last operation)	Clean the filter of the solid collector.	Vacuum suction will become weak.	Clean the filter in accordance with "Care and Maintenance" section of this manual.
19	Care oil mist separator	Once every month	Gauze etc. of oil mist separator shall not saturate with oil.	Handpiece will not work properly due to the inferior exhaust.	Discharge the oil in accordance with "Care and Maintenance" section of this manual.

MAINTENANCE AND INSPECTION

Guide for Periodical Check-up

- Some parts and components of the products are degraded or deteriorated depending on the frequency of use. Annual check-up and maintenance, as well as replacement of consumable parts, are required.
- The required parts (including consumable parts) are listed below. It may be different from the following list depending on the option of the unit.
- For check-up and repair, call a technician of our authorized dealer.

Parts and components that require periodical check-up

No.	Parts Description	Standard Lifetime	No.	Parts Description	Standard Lifetime
1	Vacuum handpiece body	3 years	8	Regulator	3 years
2	Saliva ejector handpiece body	3 years	9	Valves	3 years
3	Foot controller	5 years	10	Switches	5 years
4	Water supply hose	3 years	11	Pressure gauge	3 years
5	Drain hose	3 years	12	Arm section of moving part	7 years
6	Air supply hose	3 years			
7	Electric wiring of moving part	5 years			

Consumable parts

No.	Parts Description	No.	Parts Description
1	Valve for vacuum handpiece body	6	Filter (Air & Water)
2	Handpiece tubings	7	O-ring, Packing, Diaphragm
3	Vacuum hose		
4	Saliva ejector hose		
5	Filter for oil mist separator		

⚠ WARNING

Execute the maintenance in accordance with this instruction manual and operating manual attached to each individual equipment (Dental light, Handpiece, etc..) .
Failure to maintain this product may lead to physical injury or property damage.

NOTE

NOTE

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