

DENTAL UNIT

CLESTA II

'Cabinet' Delivery System
'Cart' Delivery System

OPERATING INSTRUCTIONS

IMPORTANT

**This manual provides operating instructions for the CLESTA-II.
The instructions contained in this booklet should be thoroughly read and understood before operating the unit.
After the installation has been completed, keep this manual in a safe place and refer to it for future maintenance.**

 **Belmont**



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Intended Use of the Product

This product is an active therapeutic device intended for the exclusive use for diagnoses, treatments and relative procedures of dentistry.

The product must be operated or handled by the qualified dentists or by dental staffs under the supervision of the dentist.

Such dentists or dental staffs should instruct and/or assist the patients to approach to and leave from the product.

Patients should not be allowed to operate or handle the product unless he/she is so instructed.

The product is supplied together with the handpieces like electric micromotor, air turbine and/or motor, scaler and so on.

Environmental Requirements

Ambient Temperature ----- Operating +5 °C - +40 °C Storage -10 °C - +50 °C

Humidity ----- 10 % - 80%

Atmospherical Pressure --- 600 hPa - 1060 hPa

Compatibility of Handpieces

Use the compatible handpieces as shown on the attached list for this unit. (List of compatible handpieces).

Important Notes

In case of the troubles, please contact Takara Belmont offices or your dealers.

Do not disassemble or attempt to repair.

Disassembly, repair or modifications should only be done by a qualified repair 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 dismantled from the unit, take full infection preventing measures, and carry out appropriate steps in accordance with the legal regulations at that time.

SYMBOLS

In this manual, on the labels or on the control panel of CLESTA II, following symbols are used. Confirm the meaning of each symbol.

	alternating current		Protective earth (ground)		ON (power)		OFF (power)
	Chair last position		Chair auto return		Chair preset1		Chair preset2
	To raise the chair		To lower the chair		To Recline the backrest		To raise the backrest
	Chair last position		Chair auto return		Chair preset1		Chair preset2
	Chair manual control		Chair auto control		Chair manual control		To raise the chair
	To Recline the backrest		To lower the chair		To raise the backrest		Handpiece Setting
	Fiber optic handpiece light on/off		Handpiece coolant spray on/off		Rotation mode select		Micro motor Forward/Reverse select
	Function		Store		Rotation speed control		Scaler power control
	Syringe		Bowl flush		Cupfiller		Dental light on/off
	Dental light mode selection		Minus		Plus		Service outlet (water)
	Service outlet water flow control		Service outlet (air)		Water		Air
	Water heater		Serial number		Manufacturer		Date of manufacture
	Authorized representative in the European community		Caution It means "caution, warnings, or possibility to danger". Refer to operating instructions		Non-ionizing radiation		Separate collection for electrical and electronic equipment
	Type B Applied Parts						

1. OVERALL VIEW AND MAJOR COMPONENTS

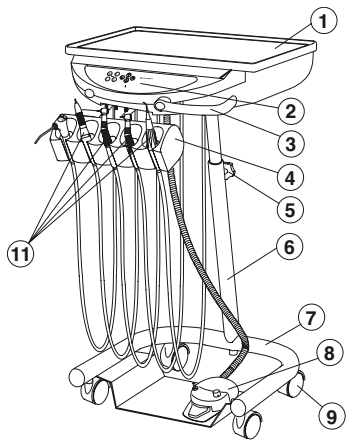


Fig.1-1 Mobile Cart

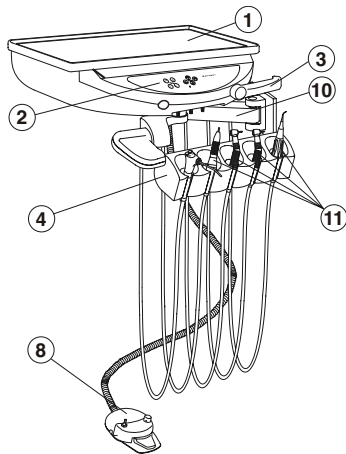
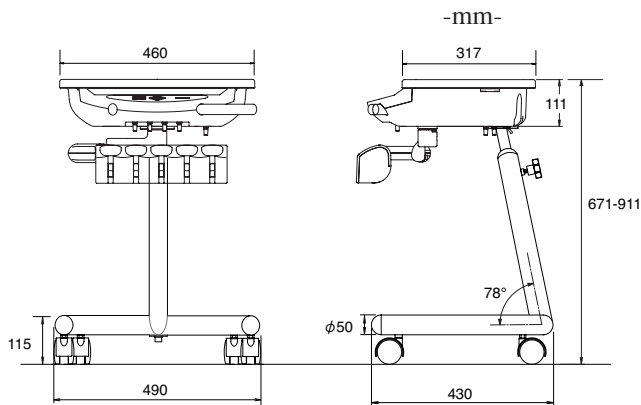


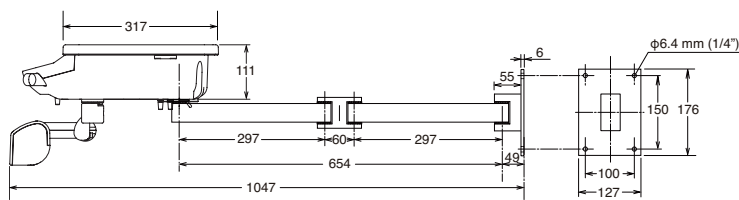
Fig.1-2 Cabinet Delivery System

- (1) Instrument Tray
 - (2) Main Control Panel
 - (3) Table Handle
 - (4) Handpiece Holder
 - (5) Knob
 - (6) Pole
 - (7) Leg
 - (8) Foot Controller
 - (9) Castor
 - (10) Arm
 - (11) Handpieces
(Micromotor, Air Turbine/
Motor, Scaler and etc.)
- Manufacturers recommend
to use the handpieces with CE markings

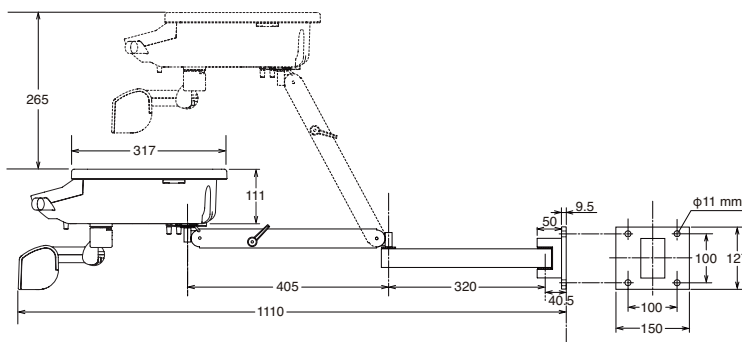
2. DIMENSIONS AND SPECIFICATIONS



2-1. Mobile Cart



2-2. Cabinet Delivery System (Standard Arm)



2-3. Cabinet Delivery System (Hi - Lo Arm)

Net Weight:

Mobile Cart ----- 22.0 kg

Cabinet Delivery (Standard Arm) --- 17.0 kg

Cabinet Delivery (Hi-Lo Arm) ----- 19.0 kg

Service Life: 10 years

3. OPERATING INSTRUCTIONS

3-1. DOCTOR TABLE SECTION

Turn off the master switch after daily operation and for long term interval.

3-1-1. Master Switch (Fig.3-1)

Turn on the master switch located under the right hand side of the doctor table the power indicator on the main control panel will then illuminate green.

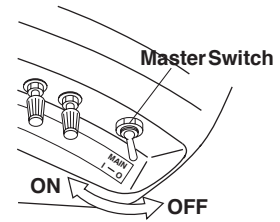
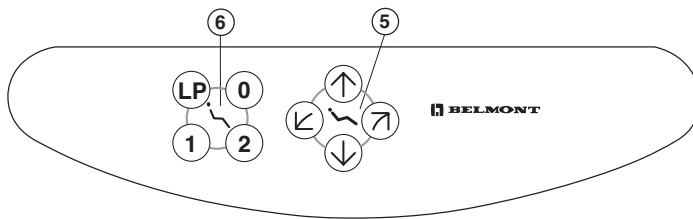


Fig.3-1 Master Switch

3-1-2. Main Control Panel

Air Version **A** Control Panel (Fig.3-2)



- ⑤ Chair Manual Control Switches
- ⑥ Chair Auto Mode Switches

Fig.3-2 Air Version Control Panel

Electric Version **E** Control Panel (Fig.3-3)

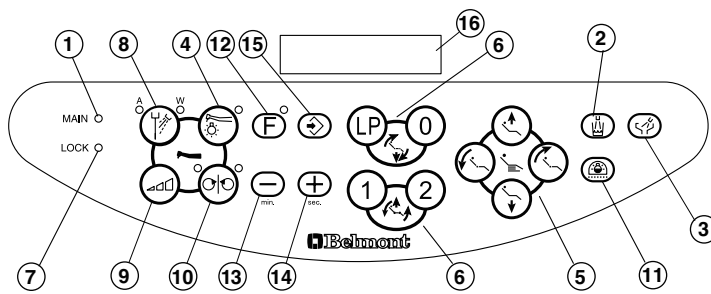


Fig.3-3. Electric Version Control Panel

- | | | |
|---------------------------------|---|-----------------------|
| ① Power Indicator | ⑥ Chair Auto Mode Switches | ⑪ Dental Light Switch |
| ② Cupfiller Switch | ⑦ Safety Lock Indicator | ⑫ Function Switch |
| ③ Bowl Flush Switch | ⑧ Coolant Water ON/OFF Switch | ⑬ Decreasing Switch |
| ④ Light Pack Switch | ⑨ Electric Motor Speed Setting Switch | ⑭ Increasing Switch |
| ⑤ Chair Manual Control Switches | ⑩ Electric Motor Direction Control Switch | ⑮ Store Switch |
| | | ⑯ Function Indicator |

① Power Indicator (Fig.3-4) **E**

Turn on the master switch, the power indicator will illuminate green.

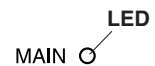


Fig.3-4 Power Indicator

② Cupfiller Switch (Fig.3-5) **E** (When linked with Clesta-II Spittoon)

Momentarily press the cupfiller switch (☺), water will come out from the cupfiller nozzle for 3 seconds and stops automatically.

Also, when the cupfiller starts, the spittoon water flushes for 6 seconds and stops automatically. (Synchronized Bowl Flush)

While the cupfiller is working, by momentarily pressing the cupfiller switch (☺) the cupfilling will cancel.





Fig.3-5 Cupfiller Switch

Note : For independent operation of the cupfiller, see section (3-1-3.) paragraph (I).

: The cupfiller water volume can be adjusted by the cupfiller flow control knob located inside the cuspidor body. Refer to 3-2.(3).

③ Bowl Flush Switch (Fig.3-6) **E** (When linked with Clesta-II Spittoon)

Momentarily press the bowl flush switch (), water flushes for 6 seconds and stops automatically. (Timer Mode) Press the bowl flush switch for 2 seconds, water flushes continuously. (Continuous mode)


While the bowl flush is working by momentarily pressing the bowl flush switch () the bowl flush will stop.

Note 2 : Clesta-II unit can be set to timer mode (standard setting) and continuous mode for the bowl flush. The bowl flush water volume can be adjusted by the bowl flush flow control knob located



Fig.3-6 Bowl Flush Switch

④ The Light Pack Switch (Optional)(Fig.3-7) **E**

Pick up the fibre optic handpiece from the holder, momentarily press the light pack switch (), the indicator illuminates in green and the fibre optic power turns on.

To switch off the light pack simply press the light pack switch again.

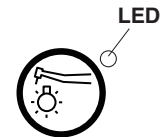










Fig.3-7 Light pack Switch

⑤ Chair Manual Control Switches (Fig.3-8) **A** **E**

- Seat Lifting ----- Press the ( ) switch until the seat is lifted up to the desired position.
- Seat Lowering ----- Press the ( ) switch until the seat is lowered to the desired position.
- Backrest Reclining ---- Press the ( ) switch until the backrest is reclined to the desired position.
- Backrest Raising ----- Press the ( ) switch until the backrest is raised up to the desired position.

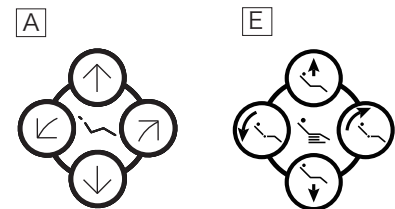




Fig.3-8 Chair Manual Control Switches


⑥ Chair Auto Mode Switches (Fig.3-9) **A** **E**

a. Preset Operation

Momentarily press the preset-1 switch (), the chair moves to the preset 1 position and stops automatically. Preset 2 position operated by the preset switch ().


Note : For preset position adjustment refer to chair Manual.

b. Auto Return Operation

Momentarily press the auto return switch (), the chair returns to the initial position (the seat is at the lowest position and the backrest in the upright position) and stops automatically.

c. Last Position Memory Operation

Momentarily press the last position memory switch () at the treatment position, the backrest raises up to the rinsing position (upright position) and stops automatically.

Momentarily press the last position memory switch () again, the backrest returns to the previous treatment position and stops automatically.

d. Emergency Stop (Safety Stop)

During automatic movements (preset, auto return and last position memory), by momentarily pressing any chair control switch this will cancel the automatic movement immediately.

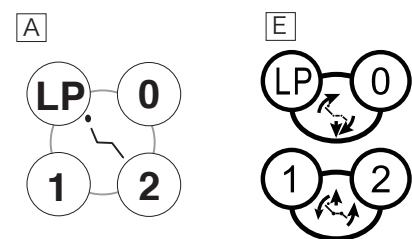


Fig.3-9 Chair Auto Mode Switches

⑦ Safety Lock Indicator (Fig.3-10) **E**

While the handpiece is running or the cuspidor bowl safety switch (Optional) is working, the safety lock indicator illuminates amber and all chair control switches will not operate.



Fig.3-10 Safety Lock Indicator

⑧ Coolant Water ON/OFF Switch (Fig.3-11) E

When a handpiece is picked up and this switch is pressed, both LED A (air) and LED W (water) lights up, the coolant water and air comes out from the handpiece. In case of air motor or air turbine, switching between spray (both of LED A and LED W are lit) and OFF occurs when this switch is pressed. In case of electric scaler, switching between water only (LED W is lit) and OFF occurs when this switch is pressed, regardless of the mode. In case of micromotor, either the 2-mode or the 4-mode can be selected by mode select setup. When this switch is pressed in the 2-mode setup, switching between spray and OFF occurs. In case of 4-mode setup, switching occurs in the sequence indicated below each time when this switch is pressed: Spray to Water only to Air only to OFF

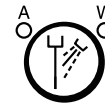


Fig.3-11 Coolant Water ON/OFF Switch




⑨ Electric Motor Speed Set Switch (Optional) (Fig.3-12) E

Two different modes, limit mode and preset mode, are available as micromotor rotation speed modes. Pressing this switch each time changes the speed mode: Limit speed -> SET1 -> SET2 -> SET3 -> Limit speed. The indicator indicates the selected mode.



Fig.3-12 Electric Motor Speed Set Switch

1) Switching to limit rotation speed (limit mode)





Pick up the micromotor from the holder, and press this switch () to select limit mode. For selecting the upper limit in the limit mode, press either plus () switch or minus () switch. The upper limit of the micromotor rotation speed changes in three steps (or 5 steps).

- Upper limit of rotation speed in case of 3 steps: 10000/20000/40000 rpm
- Upper limit of rotation speed in case of 5 steps: 5000/10000/20000/30000/40000 rpm

See item G. on page 7 for setting in 5 steps.


The micromotor rotation speed can be varied in the range of up to the selected upper limit by sliding the foot controller pedal right or left. The rotation speed range varies by the micromotor type.

2) Switching to preset rotation speed (preset mode)

Pick up the micromotor out of the holder, press this switch (), and then select preset mode (SET1 to 3). The rotation speed in this mode can be changed by pressing plus () switch or minus () switch. Press store switch () for storing the changed rotation speed.

When the foot controller is depressed upon selection of preset mode (SET1 to 3), the micromotor runs at the fixed rotation speed indicated on the indicator.

⑩ Electric Motor Rotation Direction Control Switch (Optional) (Fig.3-13) E

After picking up the electric motor from the holder, the electric motor rotation direction can be changed by momentarily pressing this switch () the rotation direction will be indicated by the amber and green LEDs.

Indicator in green : Forward Rotation

Indicator in amber : Reverse Rotation

Note: Do not change the electric motor direction while the motor is running. When the electric motor is returned to the holder in the reverse rotation setting, a electronic sound will be heard momentarily when reselected indicating the motor is in reverse.

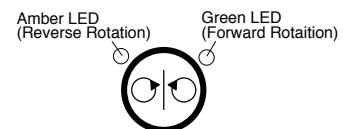


Fig.3-13 Electric Motor Direction Control Switch

⑪ Dental Light ON/OFF Switch (Fig.3-14) E

Switch for on/off the dental light.



Fig.3-14 Dental Light ON/OFF Switch

⑫ Function Switch (Fig.3-15) 

Use this switch for setting various working conditions.

As for the setup procedures, please refer to 3-1.(3) a-i.



Fig.3-15 Function Switch

3-1-3. Function Switch Setup Procedure 

A. Timer

The timer can be set to a maximum of 90 mins. 50 secs. in 10 secs. increments.



Function Switch



Decrease Switch



Increase Switch



Start Switch

(Electric Motor Speed Setting Switch)

1) To set a timer

Momentarily press the function switch, and set the time by pressing decrease switch and increase switch.

Use the increase switch () to increase the time in 10 seconds increments.

Use the decrease switch () to increase the time in 1 minute increments.

The time set will be indicated on the function indicator.

Example: Set time 3 minutes 30 seconds is indicated as 03:30 in the function indicator.

Momentarily press the start switch (Electric Motor Speed Setting Switch) () to start timer.

When the timer reaches 00-00 an electronic sounds can be heard.

2) Preset time setting



Function Switch



Decrease Switch



Increase Switch



Store Switch



0 Switch



1 Switch



2 Switch



LP Switch

Four preset time can be set. (0) (1) (2) (LP)

Momentarily press function switch, and set the time by pressing decrease switch and increase switch.

Press the store switch, then press the (0)(1)(2) or (LP) switch to store in memory.

3) Preset time operation



Function Switch



0 Switch



1 Switch



2 Switch



LP Switch



Start Switch

(Electric Motor Speed Setting Switch)

Press the function switch, then press the (0)(1)(2) or (LP) switch to choose desired preset number.

Press start switch to start timer.

4) Cancel the timer during time countdown

Momentarily press function switch,
then press start switch to cancel timer.



Function Switch



Start Switch

(Electric Motor Speed Setting Switch)

B. Group Selection Mode

The group selection mode is a convenient function for the dental clinic where a multiple (up to four) of dentists can work with one unit. The following functions can be set for each dentist.

1. Preset position for chair.

2. Preset rotation speed for micro motor.

To set the 1st dentist.

1) Momentarily press the function switch twice on main control panel, and the function indicator will indicate the dentist number.

2) Momentarily press the 0,1, 2 or LP switch on main control panel to set one of 4 dentist.

0 ; Dentist 1 / 1 ; Dentist 2 / 2 ; Dentist 3 / LP ; Dentist 4



Function Switch



0 Switch



1 Switch



2 Switch



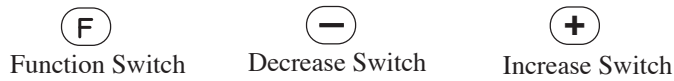
LP Switch

C. Flush out system (Optional)

The CLESTA II is equipped with two types of flush out system.

Short time flush out is for cleaning handpiece water lines.

Long time flush out is for handpiece water lines, bowl flush water line and cupfiller water line.



1) Short time flush out

Momentarily press the function switch three times and momentarily press the decrease switch.

Pick up the handpieces from the holder and set them in the cuspidor bowl.

By momentarily pressing the foot controller this starts the short time flush out.

Water comes out from the handpiece and stops automatically after 40 seconds.

During flush out, by momentarily pressing any one of unit control switches or foot controller, the flush out will cancel immediately.

2) Long time flush out

Momentarily press the function switch three times and momentarily press the increase switch.

Pick up the handpieces from the holder and set them in the cuspidor bowl.

By momentarily pressing the foot controller this starts the long time flush out for 5 minutes.

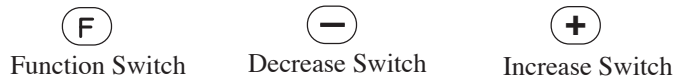
Then, cupfiller and bowl flush out starts and stops automatically in another 5 minutes.

During flush out, by momentarily pressing any one of the unit control switches or foot controller, the flush out will cancel immediately.

D. Control panel switching sound on/off

Pressing a switch on the control panel makes an electronic sound.

This sound can be eliminated as follows;



Momentarily press the function switch four times and momentarily press the decrease switch.

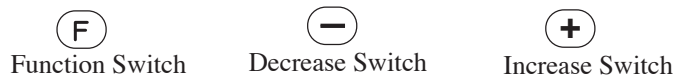
To return to original setting.

Momentarily press the function switch four times and momentarily press the increase switch.

E. Fibre optic handpiece lighting mode (Optional)

Where a fibre optic handpiece is installed, the fibre optic turns on when the handpiece is taken out of the holder, and turns off when the handpiece is returned to the holder.

This could be changed to fibre optic turns on when the handpiece is taken out of the holder and the drive air pedal of the foot control is pressed.



Momentarily press the function switch five times and press the decrease switch to activate the fibre optic by the foot control.

To return to original setting.

Momentarily press the function switch five times and press the increase switch.

F. Electronic sound for timer

Electronic sound for timer can be changed.



Function Switch



Chair Auto Mode Switch

Momentarily press the function switch six times.

Momentarily press one of the chair auto mode switches (0,1,2,LP) to change the tone of the electronic sound.

G. Micro motor maximum speed setting (Optional)

The maximum rotation speed of the micro motor can be selected in 3 steps (10000,20000,40000rpm).

This function can be changed to 5 steps (5000,10000,20000,30000,40000rpm) as follows:



Function Switch



Decrease Switch



Increase Switch

Momentarily press the function switch seven times and press the increase switch.

To return to original setting.

Momentarily press the function switch seven times and press the decrease switch.

H. Coolant Water ON/OFF Switch

In case of micromotor, either the 2-mode or the 4-mode can be selected by mode select setup.

When this switch is pressed in the 2-mode setup, switching between spray and OFF occurs.

In case of 4-mode setup, switching occurs in the sequence indicated below each time when this switch is pressed: Spray to Water only to Air only to OFF



Function Switch



Decrease Switch



Increase Switch



Coolant Water

ON/OFF Switch

To set 2 mode

Momentarily press the function switch eight times and press the decrease switch.

To set 4 mode

Momentarily press the function switch eight times and press the increase switch.

I. Cupfiller and bowl flush (When linked with Clesta-II Spittoon)

Cupfiller and bowl flush are set to operate together (when the cupfiller switch is activated, bowl flush also starts).

To make these operate independently.



Function Switch



Decrease Switch



Increase Switch

Momentarily press the function switch nine times and press the decrease switch.

To return to original setting.

Momentarily press the function switch nine times and press the increase switch.

3-1-4. Scaler for SATELEC SP4055 (Optional)

The setting range of ultrasonic scaler can be selected in 3 ranges (Scaling, prosthesis removal, amalgam, plugging / Ultrasonic endodontic treatment / Ultrasonic periodontal treatment).

Pick up the handpiece of scaler and set the range by pressing increase switch or decrease switch.

3-1-5. Doctor Table Section Controls

A. Handpiece Spray Water Controls (Fig.3-16)

The handpiece spray water controls are located under the doctor table.

The handpiece spray water controls are as follows.

From the left side HP1, HP2, HP3,...

Each handpiece spray water volume can be controlled independently.

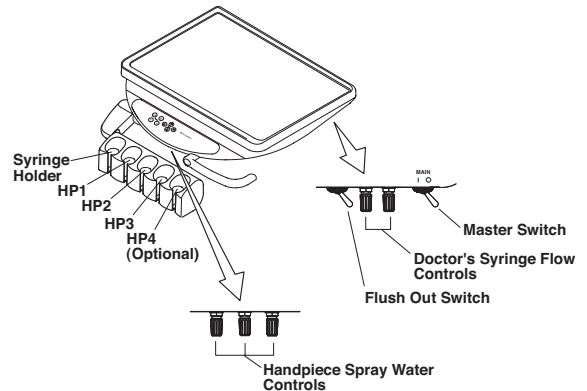


Fig.3-16 Doctor Table Section Controls

B. Doctor's Syringe Flow Controls (Fig.3-16)

Doctor's syringe flow controls are located on the facing right side under the doctor table.

The flow controls adjust the doctor's syringe air and water flow volume.

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

Note : Turning the control knob counterclockwise will increase the flow volume and turning clockwise will decrease. (Fig.3-17)

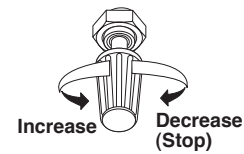


Fig.3-17 Control Knob

3-1-6. Handpiece Pressure Gauge (Fig.3-18)

Handpiece drive air pressure gauge is located on the rear side of the doctor table.

While a handpiece is working, the handpiece drive air pressure is indicated on the handpiece pressure gauge.

CAUTION

Handpiece Air Pressure Setting

Refer to handpiece manufacturers operating instructions.

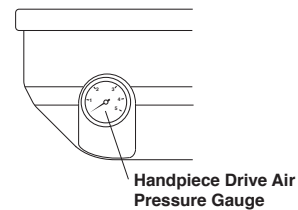


Fig.3-18 Handpiece Pressure Gauge

3-1-7. Holder Support Arm / Handpiece Holder (Fig.3-19)

⚠ CAUTION

Do not adjust the holder support arm and handpiece holder. Because the angle of the holder is fixed at the time of installation, the holder support arm will be damaged if it is moved with too much force.

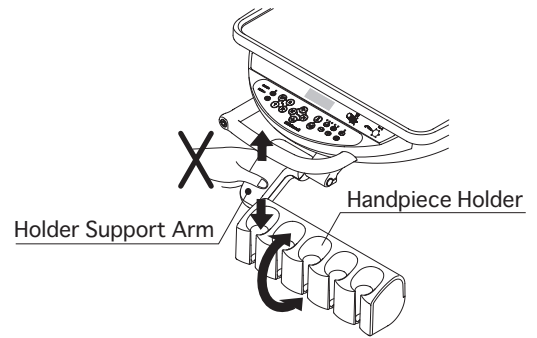


Fig.3-19 Holder Support Arm / Handpiece Holder

3-1-8. Hi-Lo Arm Lock Knob (Fig.3-20)

Loosen the lock knob to raise or lower the table. Fix the table in place by firmly tightening the lock knob after adjustment.

⚠ CAUTION

If Hi-Lo lock knob is not firmly tightened, Dr Table may move downward. If this happens while treating a patient, this can cause an injury. To avoid the risk of injury, securely tighten Hi-Lo lock knob.

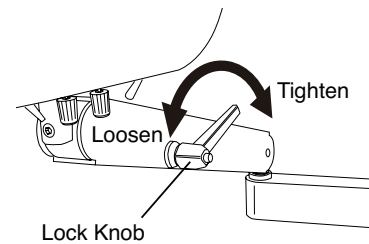


Fig.3-20 Hi-Lo Arm Lock Knob

3-2. FILM VIEWER SECTION

(1) Dental Size Film Viewer (Fig.3-21)(Optional)

Film viewer ON/OFF switch is located right side of the film viewer.

Press the switch, the film viewer turns on.

Press again, the film viewer turns off.

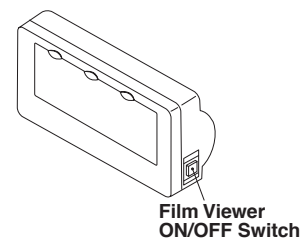


Fig.3-21 Dental Size Film Viewer

(2) Panorama Size Film Viewer (Fig.3-22)(Optional)

Film viewer ON/OFF switch and film viewer dimmer are located on the right side of the film viewer.

Film viewer brightness can be adjusted by the film viewer intensity control wheel.

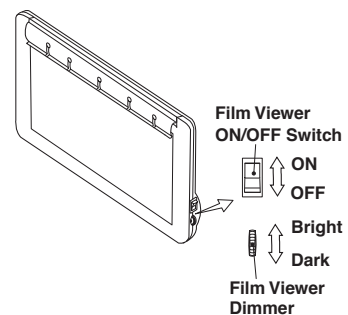


Fig.3-22 Panorama Size Film Viewer

3-3. FOOT CONTROL SECTION

(1) Standard Type Foot Control (Type A2) (Fig.3-22)

A. Drive Air Pedal

Pick up a handpiece from the handpiece holder and depress the drive air pedal, the handpiece starts running.

B. Coolant Water Switch

Coolant water switch allows handpiece coolant water to be turned on or off.

C. Chip Blower Button

By depressing the chip blower button, the chip air will come out from handpiece without the bur rotating.

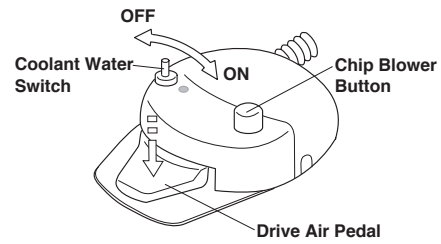


Fig.3-22 Standard Type Foot Control (Type A2)

(2) Electric Motor Foot Control (Type SE)(Optional)(Fig.3-23)

A. Drive Air Pedal

Pick up a handpiece from the handpiece holder and depress the drive air pedal, the handpiece starts running.

B. Coolant Water Switch

Momentarily depressing the coolant water switch is changed handpiece coolant water and air situation.

The situation is shown on the main control panel.

Refer to page 4 ⑧ Coolant Water ON/OFF Switch.

C. Chip Blower Button

By depressing the chip blower button, the chip air will come out from handpiece without the bur rotating.

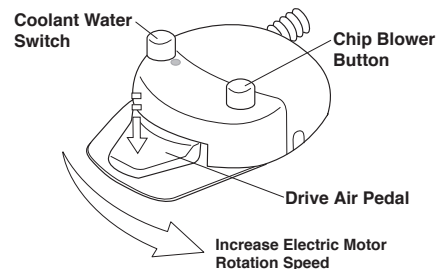


Fig.3-23 Electric Motor Foot Control (Type SE)

D. Electric Motor Rotation Control (Optional)

Pick up the electric motor from the handpiece holder and while pressing down slide drive air pedal horizontally to right, and the electric motor will start running.

The rotation speed increases by sliding the drive air pedal further to the right.

The speed control by the foot control is within the limits of the electric motor speed setting.

E. Coolant Water Switch / Electric Motor Rotation Direction Switch (Optional)

The coolant water switch can be changed for electric motor rotation direction switch.

To change to electric motor rotation direction switch.

Keep depressing the coolant water switch until buzzer sound (about 2 sec.).

To return to original (coolant water switch) setting.

Keep depressing the coolant water switch until buzzer sound (about 2 sec.).

The electric motor rotation direction is indicated on the control panel by LED.

Please see page 4 ⑩ Electric Motor Rotation Direction Control Switch.

(3) Safety Lock Device

In the following cases the safety lock device to lock the chair movement is activated.

1. When the pedal of the foot controller is depressed. **A E**

2. When any switch on the doctor control panel or the assistant control panel is depressed while the chair is moving. **A E**

3. During setting with the function switch on the doctor control panel. **E**

4. When the cuspidor bowl is rotated toward the patient side.(Option) **A E**

Note: Please refer to page 3 ⑦ (Fig3-10).

4. ADJUSTMENT

4-1. HANDPIECE ADJUSTMENT

(1) Removing Doctor Table Top (Fig.4-1)

Loosen and remove 4 x M5 screws from the doctor table bottom and remove the doctor table top.

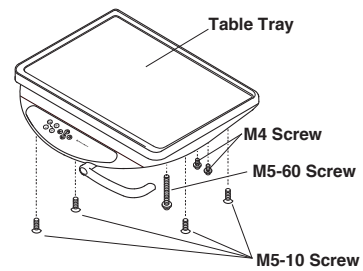


Fig.4-1 Doctor Table

(2) Handpiece Drive Air Adjustment

Adjustment of each handpiece drive air can be made by the screw on the auto select valve. It is important to set the drive air pressure in according with the handpiece manufacture's recommendation.

Drive air pressure is indicated on the handpiece pressure gauge located on the rear side of table. (Fig.4-2)

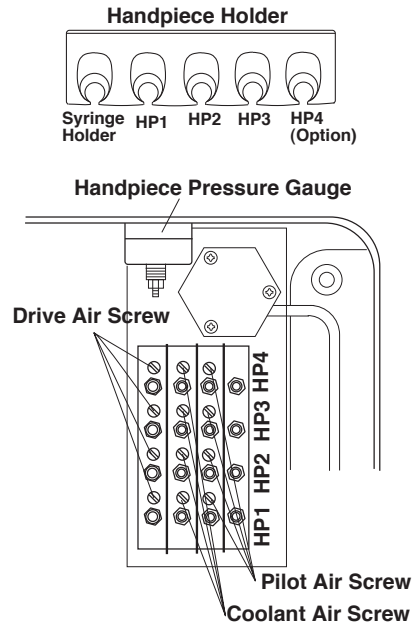


Fig.4-2 Auto Select Valve

(3) Setting The Optimum Condition

Turn the appropriate drive air screw fully clockwise, then depress the drive air pedal on the foot control fully (maximum foot pressure) and turn the screw counterclockwise slowly.

Stop turning the screw immediately when the handpiece pressure gauge shows the desired drive air pressure. (Fig.4-2)

(4) Handpiece Coolant Air Adjustment

Handpiece coolant air adjustment screws are provided for individual adjustment of handpiece coolant air. Turning a handpiece coolant air adjustment screw counterclockwise increases flow volume and turning clockwise decreases. (Fig.4-2)

Note : Do not touch the pilot air adjustment screws. - This has been factory set.

Do not loosen the adjustment screw excessively, it will make air leaking.

5. CARE AND MAINTENANCE

⚠ CAUTION

Turn OFF the master switch after daily operation and for long term intervals.

Turn OFF the main water valve after daily operation and for long term intervals.

Cleaning Unit

⚠ CAUTION

All surfaces can be cleaned with DURR FD333 cleaner.

Spray the cleaner (DURR FD333) on cloth and wipe the surfaces with the cloth.

Do not drench the chair and unit. Wipe all surfaces dry after cleaning.

5-1. Handpiece

1. Vacuum Handpiece and Saliva Ejector (Fig.5-1)

Pull and remove the top parts of each handpiece and clean strainer.

Washing

Remove dirt with tap water before sterilization.

Sterilization

Vacuum Tip/Saliva Ejector Tip/Vacuum Cap/Vacuum Handpiece Body/Saliva Ejector Handpiece Body can be autoclave. Vacuum handpiece body and saliva ejector body have to assemble before autoclave.

A. Insert the handpiece in a sterilization pouch and seal it.

B. Autoclave for 20 min. at 121°C

Storage

After cleaning the vacuum tip and saliva ejector tip, keep it in the clean place.

Note : The slide knob can be autoclave 100 times and is expendable supplies.

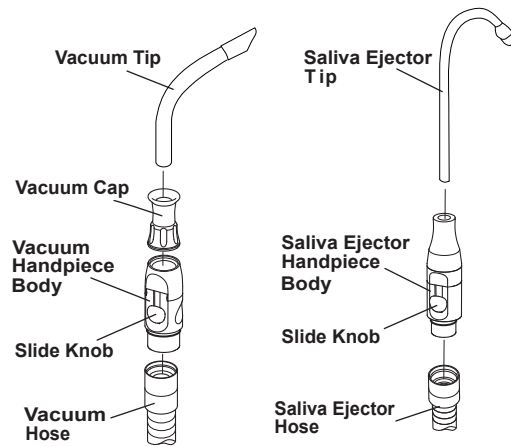


Fig.5-1 Vacuum Handpiece and Saliva Ejector

2. Micro Motor / Turbine / Scaler

Sterilize the handpiece according to manufacturer's operating manual.

3. Belmont 77 Syringe (Fig.5-2)

Remove the nozzle from syringe and clean it.

Washing

Remove dirt with tap water before sterilization.

Sterilization

The nozzle can be sterilized with autoclave.

A. Insert the handpiece in a sterilization pouch and seal it.

B. Autoclave for 20 min. at 121°C

Storage

After cleaning the nozzle, keep it in the clean place.

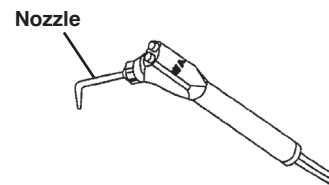


Fig.5-2 Belmont 77 Syringe

⚠ CAUTION

- Skip dry cycle.

6. 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 CLESTA II Unit is intended for use in the electromagnetic environment specified below. The customer or the user of the CLESTA II Unit should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The CLESTA II Unit 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 CLESTA II Unit 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	Class A	
Voltage fluctuations/ Flicker emissions IEC 61000-3-3	Complies	

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

Guidance and manufacture's declaration – electromagnetic immunity

The CLESTA II Unit is intended for use in the electromagnetic environment specified below. The customer or the user of the CLESTA II Unit should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz outside ISM bands ^a	3 Vrms	<p>Portable and mobile RF communications equipment should be used no closer to any part of the CLESTA II Unit, including cables, than the recommended separation distance calculated from the equation applications to the Frequency of the transmitter.</p> <p>Recommended separation distance</p> $d = 1.2\sqrt{P}$
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 <p>Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m).</p> <p>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</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> 

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 CLESTA II Unit is used exceeds the applicable RF compliance level above, the CLESTA II Unit should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the CLESTA II Unit.
- 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 CLESTA II does not make any movements, except for sounding a buzzer and switching on/off the indicator.

**Recommended separation distances between
Portable and mobile RF communications equipment and the CLESTA II Unit**

The CLESTA II Unit is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the CLESTA II Unit can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the CLESTA II Unit 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.

7. List of Compatible Handpieces

	DESCRIPTION
Syringe	LUZZANI(3-way) Minilight w/Light
	LUZZANI(6-way) Minilight w/Light
	DCI (3-way)
Turbine	BIEN AIR BORA S36L / UNIFIX with LIGHT
	NSK Ti-Max X
Air motor	BIEN AIR Aquilon 830 / UNIFIX with LIGHT /PM1132
	NSK EX-203 / EX-6
Micromotor	BIEN AIR MC3LK / PLMP021PCB. / PM1132
	BIEN AIR MC3LK / PL970 PCB. / PM1132
	BIEN AIR MX / DMX PCB. / PM1132
	BIEN AIR ISOLITE(LK 40 IR E) / PLMP021PCB. / PM1132
	BIEN AIR ISOLITE(LK 40 IR E) / PL970. / PM1132
	NSK NL-400 / NL-400SB.PCB / EX-6
	NSK TIM-40J / DA-290N PCB. / EX-6
	NSK NLS / NLS.PCB / EX-6
Scaler	SATELEC SP4055 w/Light
	NSK VARIOS VA 150 LUX(w/light)
	EMS SCALER

NOTE

EC	REP
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