

DENTAL UNIT AND CHAIR

# *Voyager* III L

OPERATING INSTRUCTIONS

**IMPORTANT**

**This manual provides operating instructions for VOYAGER-II L.  
The instructions contained in this booklet should be thoroughly read and understood before operating the unit and chair.  
File this manual and refer back to it for future maintenance.**

 **Belmont**





# TABLE OF CONTENTS

	Page
1. OVERALL VIEW AND MAJOR COMPONENTS -----	1
2. DIMENSIONS AND SPECIFICATIONS	
2-1. DIMENSIONS -----	2
2-2. SPECIFICATIONS -----	2
3. OPERATING INSTRUCTIONS FOR UNIT	
3-1. MASTER SWITCH -----	3
3-2. DOCTOR TABLE SECTION -----	3
3-3. CUSPIDOR SECTION -----	4
3-4. ASSISTANT INSTRUMENT HOLDER SECTION -----	5
3-5. FOOT CONTROL SECTION -----	5
3-6. SWING ARM SECTION -----	5
3-7. DOCTOR TABLE SAFETY LOCK DEVICE -----	5
4. OPERATING INSTRUCTIONS FOR CHAIR	
4-1. MAIN SWITCH -----	6
4-2. CONTROLS -----	6
4-3. SAFETY LOCK DEVICE -----	7
4-4. HEADREST OPERATIONS -----	7
4-5. AUTO MODE POSITION ADJUSTMENT -----	7
5. RIGHT/LEFT HANDED DENTISTRY CONVERSION -----	8
6. CARE AND MAINTENANCE	
6-1. CARE AND MAINTENANCE FOR CHAIR -----	8
6-2. CARE AND MAINTENANCE FOR UNIT -----	9
7. ELECTROMAGNETIC COMPATIBILITY -----	11
8. LIST OF COMPATIBLE HANDPIECES -----	14

### 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

<b>LP</b>	Chair last position	<b>0</b>	Chair auto return	<b>1</b>	Chair preset1	<b>2</b>	Chair preset2
	To raise the chair		To Recline the backrest		To lower the chair		To raise the backrest
	Chair manual control		Non-ionizing radiation		Authorized representative in the European community		Manufacturer
	Date of manufacture		Caution It means "caution, warnings, or possibility to danger".		Separate collection for electrical and electronic equipment		Type B Applied Parts

# 1. OVERALL VIEW AND MAJOR COMPONENTS

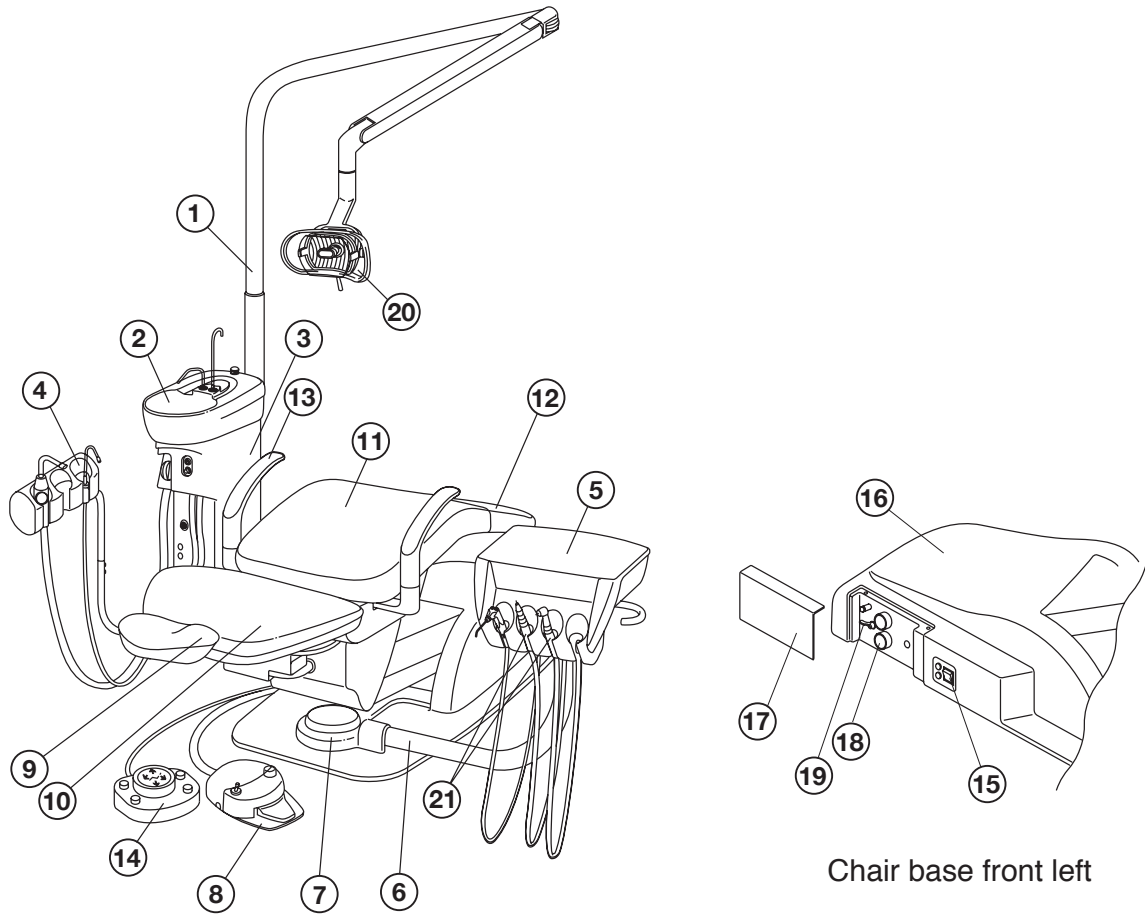


Fig.1-1 Overall View and Major Parts

## MAJOR PARTS

- |                     |  |
|---------------------|--|
| 1. Light Pole       | 13. Armrest                              |
| 2. Cuspidor Bowl    | 14. Foot Switch                          |
| 3. Cuspidor Unit    | 15. Power Switch                         |
| 4. Assistant Holder | 16. Pump Cover                           |
| 5. Doctor Table     | 17. J-Box Cover                          |
| 6. Doctor Arm       | 18. Pressure Gauge                       |
| 7. Doctor Arm Cover | 19. Stop Valve for Water                 |
| 8. Foot Control     | 20. Dental Light 048-VG                  |
| 9. Headrest         | 21. Handpieces                           |
| 10. Backrest        | (Micromotor, Air Turbine/Motor,          |
| 11. Seat            | Scaler and etc.) Manufacturers recommend |
| 12. Seat Cover      | to use the handpieces with CE markings   |

## 2. DIMENSIONS AND SPECIFICATIONS

### 2-1. DIMENSIONS

-mm-

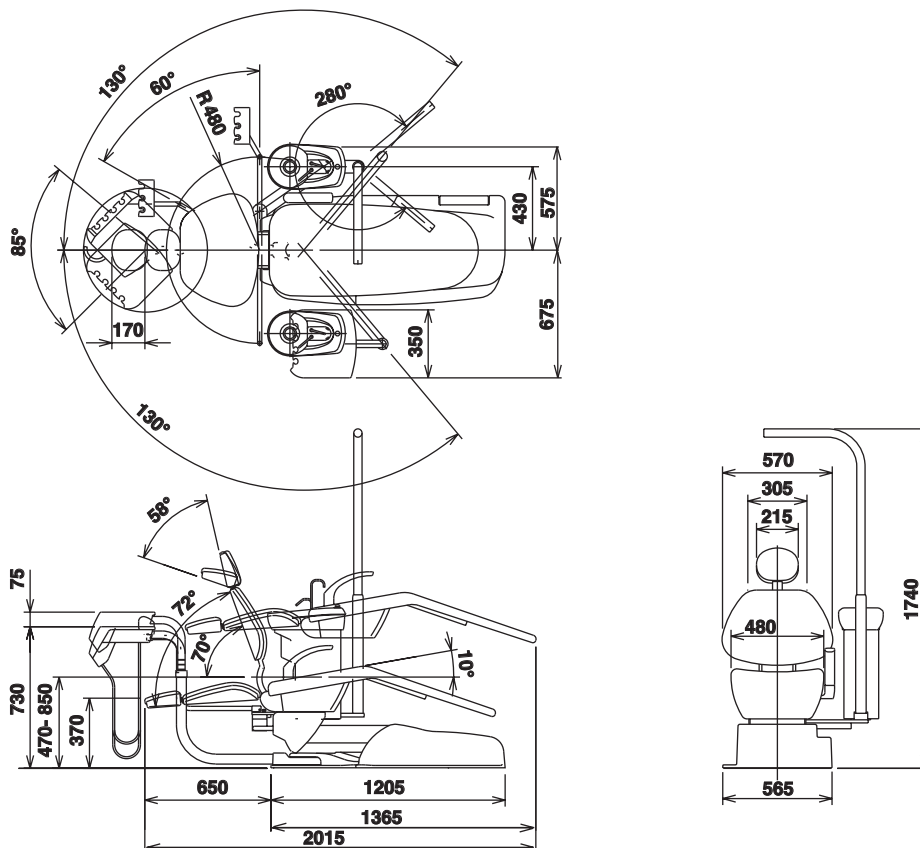


Fig.2-1 Dimensions

### 2-2. SPECIFICATIONS

#### Chair Section

Seat initial Height-----	470mm
Seat Lifting Stroke-----	380mm
Backrest Movement -----	0° ~ 72° above Horizontal
Auto Movements-----	2 Preset, 1 Last Position Memory and 1 Auto Return
Control Voltage-----	DC12V
Power Consumption-----	230V, 50Hz, 3.7A
Net Weight-----	140 kg
Maximum Load -----	135 kg
Service Life -----	10 years

#### Unit Section

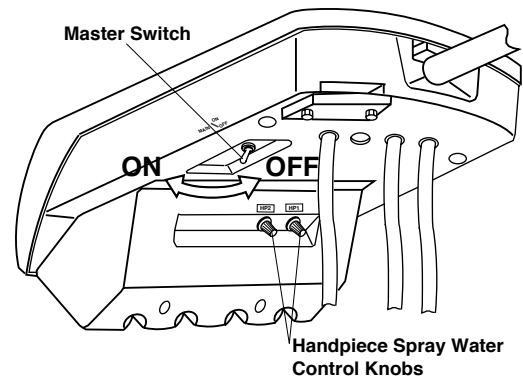
Doctor Side Handpiece-----	1 x High Speed Turbine Tubing 1 x Low Speed Air Motor Tubing 1 x 3-Way Syringe
Assistant Side Handpiece-----	Saliva Ejector (Central System Type) Vacuum (Central System Type)
Bowl Flush-----	Manual Control
Cupfiller-----	Manual Control
Dental Light -----	048-VG Type
Net Weight-----	67 kg (With Dental Light)
Service Life -----	10 years

### 3. OPERATING INSTRUCTIONS FOR UNIT

**Note :** Before operation, confirm that air compressor is fully charged.  
The chair can be operated only when both the chair main switch and the master switch are ON.  
Refer to 4-1.

#### 3-1. MASTER SWITCH (Fig.3-1 and Fig.3-2)

Turn on the master switch located under the doctor table, the master switch indicator located on the front side of the cuspidor unit turns to green.



**Fig. 3-1** Master Switch and Handpiece Spray Water Control Knobs

#### **⚠ CAUTION**

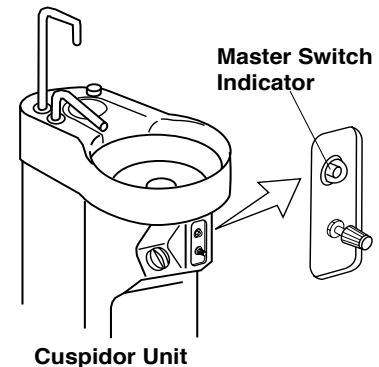
**Turn off the master switch after daily operation.**

#### 3-2. DOCTOR TABLE SECTION

##### (1) Handpiece Spray Water Flow Control Knobs (Fig.3-1)

The handpiece spray water flow control knobs located under the doctor table provide for individual adjustment.

Each handpiece spray water flow control knob is lined up from the facing left hand side HP1, HP2... Turning a flow control knob counterclockwise increases flow volume and turning clockwise decreases.



**Fig. 3-2** Master Switch Indicator

##### (2) 3-Way Syringe

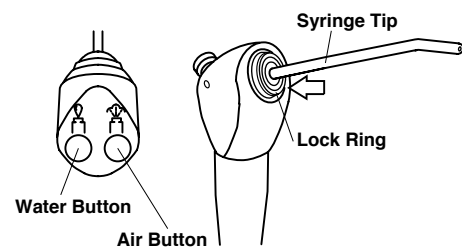
###### A. 3-Way Syringe Operation (Fig.3-3)

Depressing either or both buttons, this syringe offers air, water and spray.

Syringe tip can be rotated freely.

To remove syringe tip : Keep depressing the lock ring and pull out the syringe tip.

To set syringe tip : Keep depressing the lock ring, insert the syringe tip and release the lock ring.



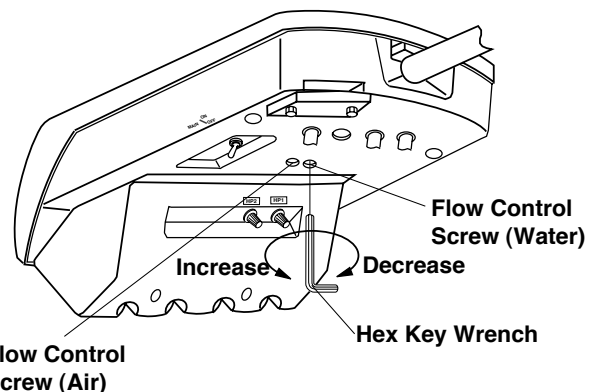
**Fig. 3-3** 3-Way Syringe

###### B. 3-Way Syringe Flow Control Screws (Fig.3-5)

Air and/or water flow of 3-way syringe can be adjusted by the flow control screws located bottom of the table.

Facing right hand side screw controls air and left hand side controls water.

Turning a flow control screw counterclockwise increases flow volume and turning clockwise decreases. Use the hex key wrench supplied.



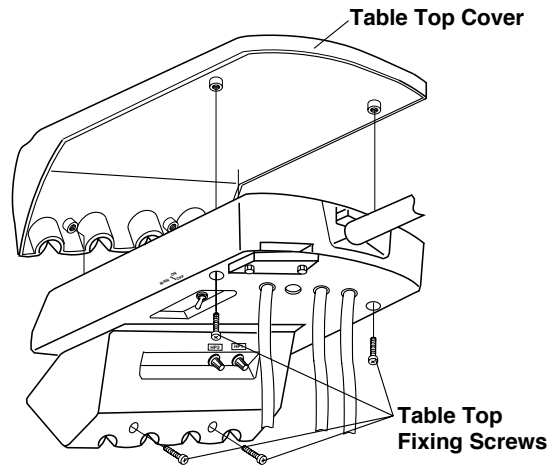
**Fig. 3-4** 3-Way Syringe Flow Control Screws



**(3) Removing Table Top (Fig.3-5)**

Loosen 4-screws from the table bottom and remove the table top.

The auto select valve and the handpiece pressure gauge are located in the table.



**Fig. 3-5** Removing Table Top Cover

**(4) Handpiece Drive Air Adjustment Screws (Fig.3-6 & Fig.3-7)**

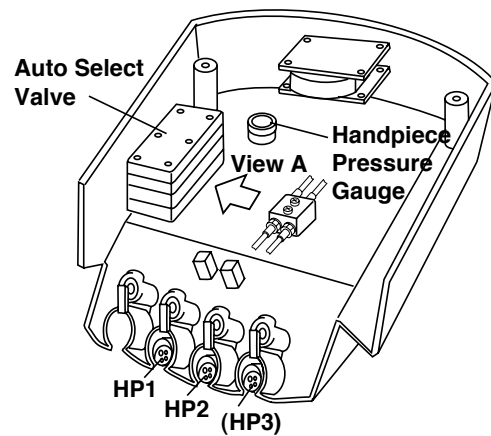
Adjustment of drive air of each handpiece can be made by the screw on the auto select valve. It is important to set the drive air pressure in according with the handpiece manufacturer's recommendation.

Drive air pressure is indicated by the handpiece pressure gauge.

**Note :** Refer to 3-5 for handpiece control

**Setting The Optimum Condition (Fig.3-7)**

Turn the appropriate drive air screw fully clockwise, then depress the drive air pedal of 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.



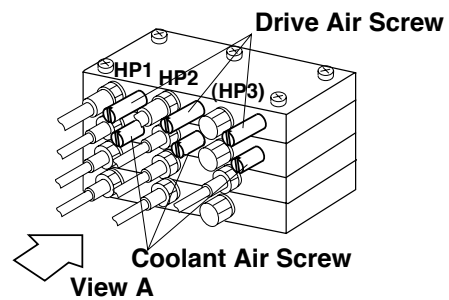
**Fig. 3-6** Auto Select Valve and Pressure Gauge

**(5) Handpiece Coolant Air Adjustment Screws (Fig.3-6 & Fig.3-7)**

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.

**(6) Handpiece**

Refer to handpiece manufacturers operating instructions.



**Fig. 3-7** Auto Select Valve

**3-3. CUSPIDOR SECTION**

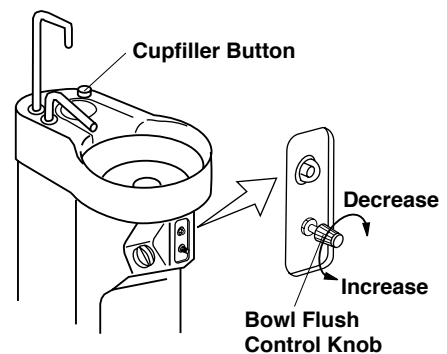
**(1) Cupfiller (Fig.3-8)**

Keep pressing the cupfiller button until a cup is filled with water.

**(2) Bowl Flush (Fig.3-8)**

Turn the bowl flush control knob counterclockwise, water flushes into the cuspidor bowl.

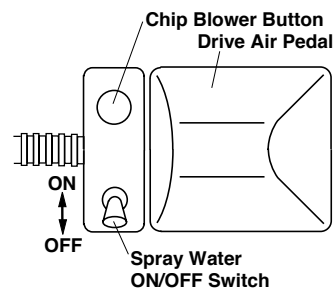
Further turning counterclockwise, increases the amount of flush water.



**Fig. 3-8** Cupfiller and Bowl Flush

### 3-4. ASSISTANT INSTRUMENT HOLDER SECTION

Pick up an instrument (Saliva Ejector or Vacuum Handpiece) from the assistant instrument holder, it starts working automatically. Returning the instrument to the assistant instrument holder stops it automatically.



### 3-5. FOOT CONTROL SECTION (Fig.3-9)

#### (1) Drive Air Pedal

Depressing the drive air pedal controls handpiece rotation speed and coolant air on/off.

#### (2) Spray Water ON/OFF Switch

Spray water ON/OFF switch allows water to be turned on or off.

Refer to 3-2 (1) of this manual for adjusting water of each handpiece.

#### (3) Chip Blower Button

By depressing the chip blow button, chip blower comes out from handpiece without bur turning.

#### (4) Safety Device by Foot Control

When the drive air pedal is being depressed and handpiece is running, all the chair control switches are inactivated.

This is to prevent the chair from unexpected movement by any switch being touched accidentally.

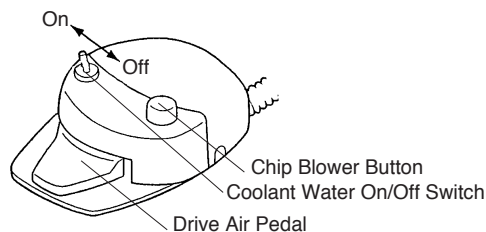


Fig. 3-9 Foot Control

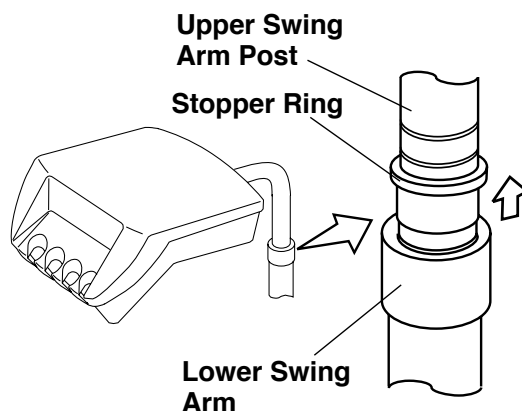


Fig. 3-10 Swing Arm

### 3-6. SWING ARM SECTION

Table Height Adjustment (Fig.3-10)

Hold and slightly lift up the doctor table, stopper ring will come up on upper swing arm post.

Slide up or down the stopper ring to appropriate groove on upper swing arm post.

Lower the doctor table to fix it at that height.

### 3-7. DOCTOR TABLE SAFETY LOCK DEVICE (Fig.3-11)

If excess pressure (upward or downward) is applied to the doctor table by the movement of chair, safety device stops the chair movement to protect the table from being damaged.

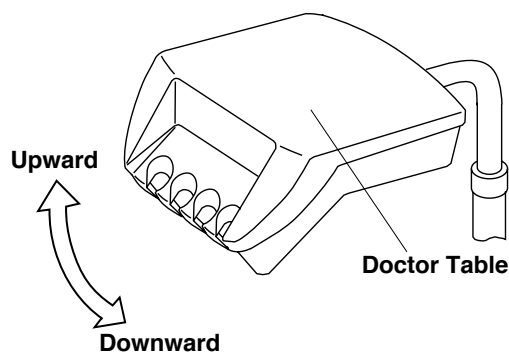


Fig. 3-11 Doctor Table Safety Lock Device

## 4. CHAIR OPERATING INSTRUCTIONS

### 4-1. MAIN SWITCH (Fig.3-1 & Fig.4-1)

Turn on the master switch located at the left side of the pump cover, main switch illuminates in green.

**Note :** Chair main switch will not activate unless master switch of unit is turned on.  
Refer to 3-1.

#### CAUTION

**Operate the main switch only by hand.  
Turn off the main switch after daily operation.**

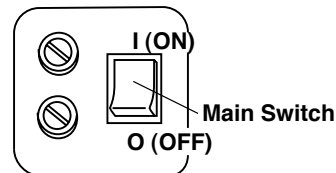


Fig.4-1 Main Switch

### 4-2. CONTROLS (Fig.4-2)

#### CAUTION

**Before operating the chair, confirm safety  
for the patient and the operator.**

All chair electrical movements can be controlled by the foot switch.

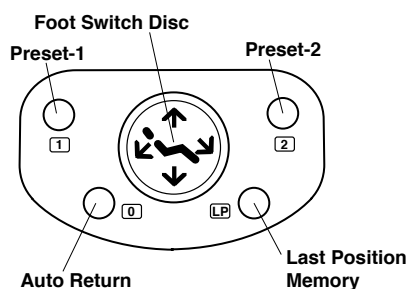



Fig.4-2 Foot Switch

#### (1) Manual Mode Control


##### A. Seat Lifting

Keep depressing (  ) side of the foot switch disc until the seat is lifted up to the desired position.


##### B. Seat Lowering

Keep depressing (  ) side of the foot switch disc until the seat is lowered to the desired position.

##### C. Backrest Reclining

Keep depressing (  ) side of the foot switch disc until the backrest is reclined to the desired position.

##### D. Backrest Raising

Keep depressing (  ) side of the foot switch disc until the backrest is raised up to the desired position.

#### (2) Auto Mode Control

##### E. Preset Control

VOYAGER chair has two preset positions. (Preset-1 and Preset-2)

Momentarily depress ( **1** ) button on the foot switch, the chair will move to the preset-1 position automatically. (Preset-2 is operated by ( **2** ) button.)

##### F. Auto Return

Momentarily depress ( **0** ) button on the foot switch, the chair will return to the initial position (The seat is fully lowered and the backrest is upright position.),

##### G. Last Position Memory

Momentarily depress (**LP**) button at treatment position, the backrest and seat will move to the mouth rinsing position automatically.

Momentarily depress (**LP**) button again, the backrest and seat will return to the previous treatment position automatically.

## H. Emergency Stop

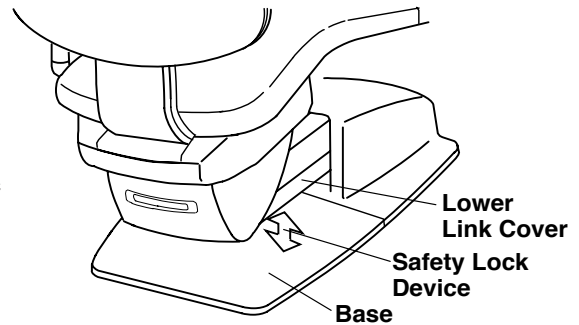
During automatic procedure (Preset, Auto return and Last position memory), depressing any side of disc or button on the foot switch will cancel the automatic movement immediately.

**Note :** Do not keep depressing auto mode button ( **1** )( **2** )( **0** )( **LP** ) over 3 seconds.  
Memorized position in auto mode may be changed.

### 4-3. SAFETY LOCK DEVICE (Fig.4-3)

All chair movements can be stopped automatically by the safety lock device when pressure is detected between the base and the lower link cover. In case that the safety lock device works, lift up the seat and remove a cause of pressure.

**Note :** Seat lifting and backrest raising can be operated by manual foot switch disc even when the safety lock device is working.



**Fig.4-3** Safety Lock Device

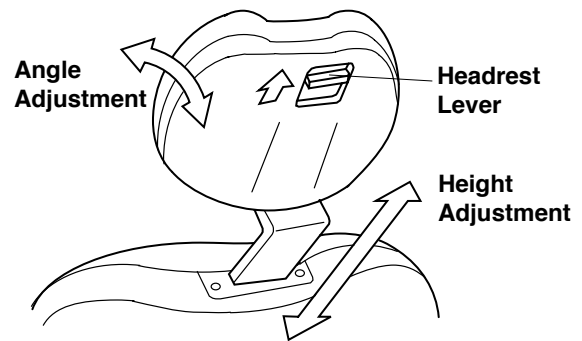
### 4-4. HEADREST (Fig.4-4)

#### (1) Height Adjustment

Press down or pull up the headrest to the desired height.

#### (2) Angle Adjustment

Push the headrest forward as required. Lift the headrest lever to rotate backward and release the lever at the desired angle.

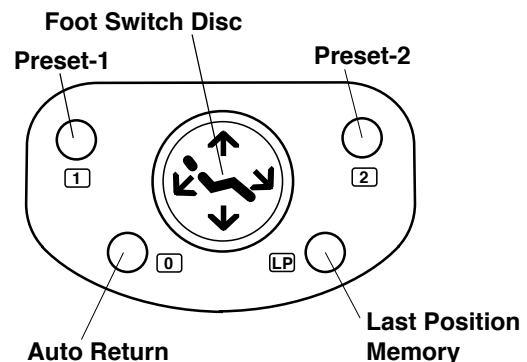


**Fig.4-4** Headrest

### 4-5. AUTO MODE POSITION ADJUSTMENT

#### (1) Preset position Adjustment (Fig.4-5)

- Two preset positions can be memorized.
- Set the seat and the backrest to the desired preset position by manual control.
  - Keep depressing ( **1** ) button until buzzer sounds (in about 3 seconds), then release it.
  - The position is memorized in Preset-1.
  - Preset-2 can be memorized by depressing ( **2** ) button as following A to C.



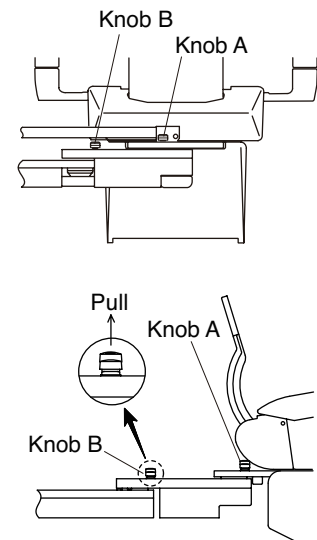
**Fig.4-5** Foot Switch

#### (2) Mouth Rinsing Position Adjustment (Fig.4-1)

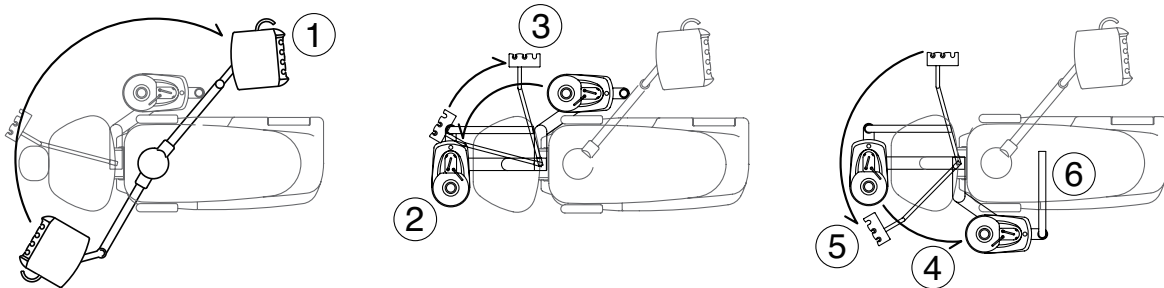
- Mouth rinsing position in last position memory movement can be adjusted.
- Set the backrest and seat to the desired mouth rinsing position by manual control.
  - Keep depressing ( **LP** ) button until buzzer sounds (in about 3 seconds) and release the button.
  - This position is memorized as mouth rinsing position.

## 5. RIGHT/LEFT HANDED DENTISTRY CONVERSION

1. Bring the chair to the initial position( at lowest height with backrest upright).
2. Swing the doctor table to cuspidor side fully.
3. Pull up two lock pins(A&B) on cuspidor mount arm, (**Fig.5-1**) and rotate the cuspidor unit to just behind the chair.
4. Detach assistant handpiece holder from holder bar by lifting it up. Then rotate the assistant holder bar to the other side, and re-attach the handpiece holder on holder bar.
5. Rotate the cuspidor unit to the other side and set lock pins A& B on cuspidor mount arms to fix the unit.
6. Rotate dental light arm to the other side.



**Fig.5-1** Location of Knob



**Fig.5-2** Position for doctor table, cuspidor unit and dental light

## 6. CARE AND MAINTENANCE

### ⚠ CAUTION

Turn off the master switch and the main switch after daily operation or in long term interval.

### 6-1. CARE AND MAINTENANCE FOR CHAIR

Other than cleaning, no scheduled maintenance of the chair is required.

### ⚠ CAUTION

Do not drench the chair for cleaning.  
Do not use polishing powder, solvents, strong disinfectant and hot water for cleaning.  
After cleaning, wipe with a dry soft cloth and keep dry.

Upholstery can be cleaned with a neutral detergent.

Paint parts, metal parts and plastic parts can be cleaned with DURR FD333 cleaner ( or equivalent). Do not drench the chair and unit. Wipe all surfaces dry after cleaning.

## 6-2. CARE AND MAINTENANCE FOR UNIT

### (1) Cleaning Unit

#### ⚠CAUTION

Do not drench the unit for cleaning.  
Do not use polishing powder, solvents, strong disinfectant and hot water for cleaning  
After cleaning, wipe with a dry soft cloth and keep dry.

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.

### (2) Basket Strainer (Fig.6-1)

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

### (3) Solid Collector (Fig.6-1)

Pull out the solid collector with filter and clean it.

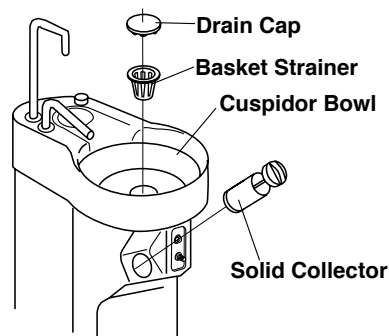


Fig.6-1 Basket Strainer and Solid Collector

### (4) Handpiece

#### 1. Vacuum Handpiece and Saliva Ejector (Fig.6-2)

- A. Pull and remove the top parts of each handpiece and clean strainer.
- B. After daily operation, run two cup of clean water through the handpieces to clean inside.

#### Sterilization

Vacuum Tip/Saliva Ejector Tip/Vacuum Cap/  
Vacuum Handpiece Body/Saliva Ejector Handpiece  
Body can be sterilized with autoclave.  
Vacuum handpiece body and saliva ejector body  
must be assembled before autoclaving.

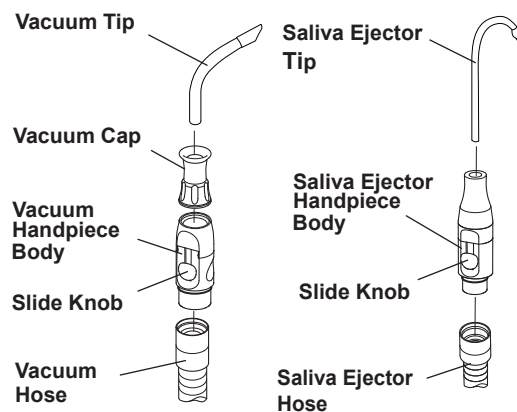


Fig.6-2 Vacuum Handpiece and Saliva Ejector

- A. Wash off dirt of the handpiece with natural detergent.
- B. Rinse the handpiece with tap water.
- C. Insert the handpiece in a sterilization pouch and seal it.
- D. Autoclave for 20 min. at 121°C.

Note: The slide knob can be autoclaved 100 times and is an expendable supply.

#### ⚠CAUTION

- Skip dry cycle.

Note : After cleaning the handpieces, apply a white vaseline lightly on the rubber parts (O-Ring) and screws part for long life.

Keep the handpieces in a clean place.

## 2. Micro Motor / Air Motor / Turbine / Scaler

Sterilize the handpiece according to manufacturer's operating manual.

## 3. Belmont 77 Syringe (Fig.6-3 )

A. Remove the nozzle from syringe and clean it

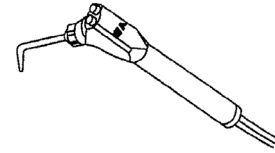
### Sterilization

A. Wash off dirt of the handpiece with natural detergent.

B. Rinse the handpiece with tap water.

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

D. Autoclave for 20 min. at 121°C.



**Fig.6-3** Belmont 77 Syringe

### **⚠ CAUTION**

- Skip dry cycle.

Keep the syringe in a clean place.

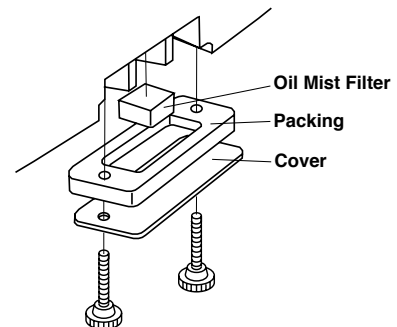
## 4. Tubing and Hose

It is recommended that Durr FD333 be used to clean the exterior parts of tubing and hose

## (5) Cleaning Oil Mist Separator (Fig.6-4)

Handpiece oil mist separator is located rear side of the doctor table.

Once a week open the oil mist separator and clean the oil mist filter.



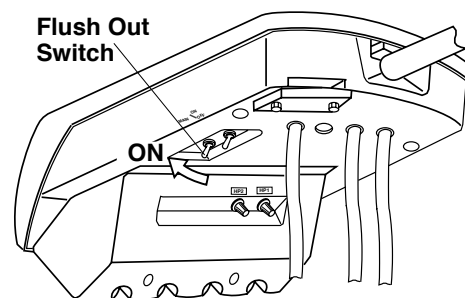
**Fig.6-4** Cleaning Oil Mist Separator

## (6) Flush Out System (Fig.6-5) (Option)

Flush out switch is located under the doctor table.

Take a handpiece from the handpiece holder. Turn on the flush out switch by pulling the lever toward outside.

Water flushes from the handpiece to clean water line while the switch is on.



**Fig.6-5** Flush Out Switch

## 7.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.


<b>Guidance and manufacture's declaration - electromagnetic emissions</b>		
The Voyager II L is intended for use in the electromagnetic environment specified below. The customer or the user of the Voyager II L should assure that it is used in such an environment.		
<b>Emissions test</b>	<b>Compliance</b>	<b>Electromagnetic environment - guidance</b>
RF emissions CISPR 11	Group 1	The Voyager II L 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 Voyager II L 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	

<b>Guidance and manufacture's declaration - electromagnetic immunity</b>			
The Voyager II L is intended for use in the electromagnetic environment specified below. The customer or the user of the Voyager II L should assure that it is used in such an environment.			
<b>Immunity test</b>	<b>IEC 60601 test level</b>	<b>Compliance level</b>	<b>Electromagnetic environment - guidance</b>
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 Voyager II L requires continued operation during power mains interruptions, it is recommended that the Voyager II L 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 Voyager II L is intended for use in the electromagnetic environment specified below. The customer or the user of the Voyager II L 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 <sup>a</sup>	3 Vrms	Portable and mobile RF communications equipment should be used no closer to any part of the Voyager II L, including cables, than the recommended separation distance calculated from the equation applications to the Frequency of the transmitter.  <b>Recommended separation distance</b> $d = 1.2\sqrt{P}$
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, <sup>a</sup> should be less than the compliance level in each frequency range. <sup>b</sup>  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 Voyager II L is used exceeds the applicable RF compliance level above, the Voyager II L should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the Voyager II L.
- 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 section of the Voyager II L 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 Voyager II L**

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

## 8. LIST OF COMPATIBLE HANDPIECES

	DESCRIPTION
Syringe	LUZZANI(3-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
Scaler	SATELEC SP4055 w/Light
	EMS Scaler
	NSK VARIOS VA 150 LUX(w/light)

# NOTE



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