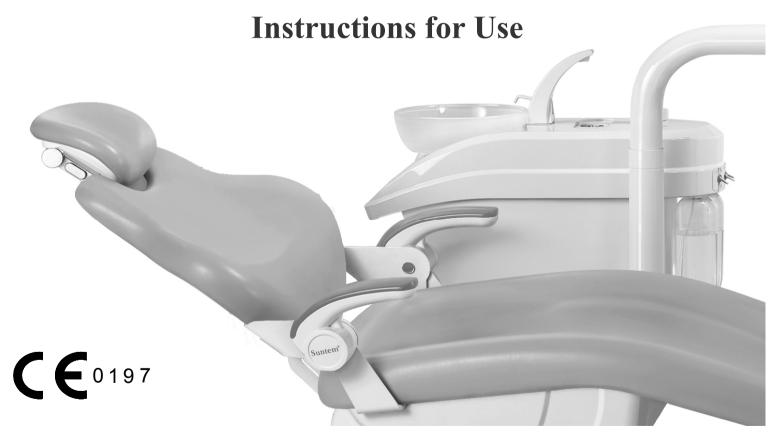
DENTAL UNIT

TR-D303/TR-D307

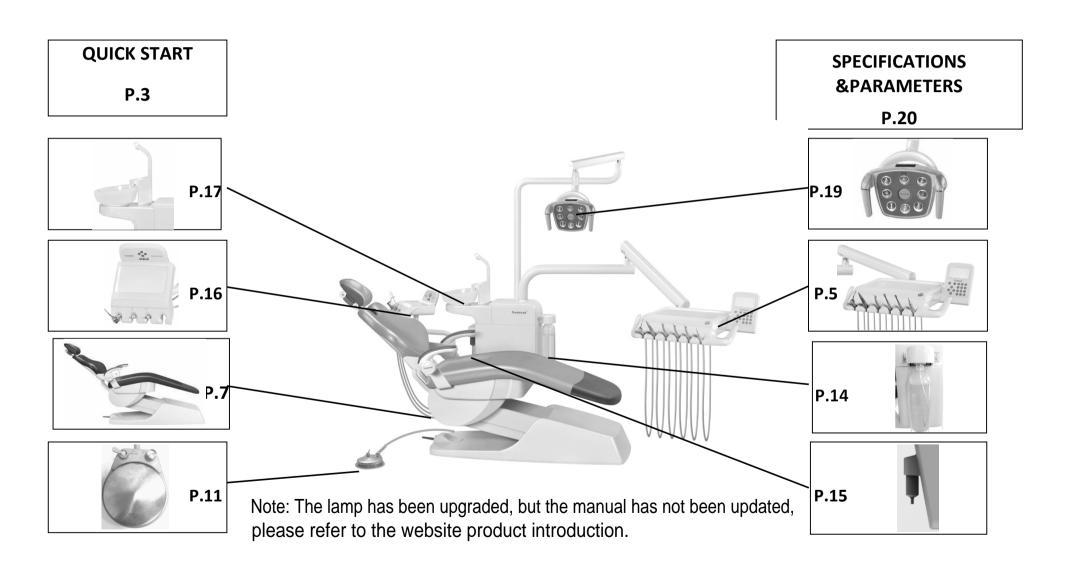


REFERENCE SECTION

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DENTAL PATIENT CHAIR AND DELIVERY SYSTEM	5
ASSISTANT'S INSTRUMENTATION AND CABINET	13
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Note: The lamp has been upgraded, but the manual has not been updated, please refer to the website product introduction.

CONTENT MAP



INTRODUCTION OF SYMBOLS

Symbolic Name	Symbol Pattern	Symbolic Name	Symbol Pattern	Symbolic Name	Symbol Pattern
Warning	<u> </u>	Seat up button	4	Can not be reused	(2)
Caution	<u> </u>	Seat down button	\$	Radio wave emission	$((\overset{\bullet}{\mathbf{A}}))$
Note	0	Backrest up button		Important	[]i
Program setting button	SET	Backrest down button		Danger	
Reset button	RESET	Rinse button		Operating light button	
Preset position buttons	999	Spittoon washing button	T, Ži	Film viewer button	
Preset position of group		Cup filler button	•	Water heating button	

QUICK START

Move the main control lever to "on", turn on the water, gas and electric Press and keep the on/off switch to disengage the balance arm of dental unit.



Check the water bottle and refill it when empty.

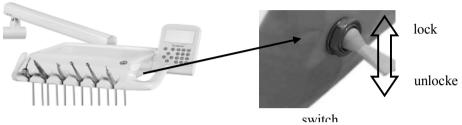


(For more instructions about the Purewater system, go to P.14.)

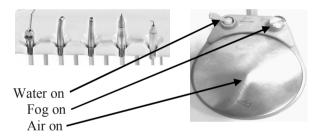
Turn on the light power through the light button on the control panel.



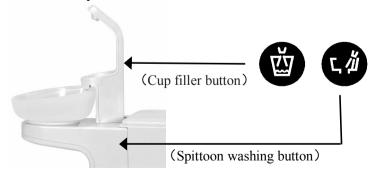
brake and adjust the height of the instrument tray. Disengage the switch to lock the position.



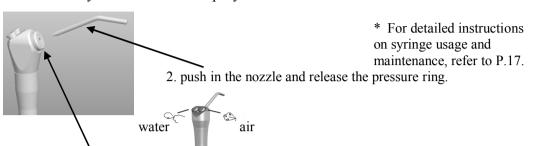
Lift to activate the hand piece. Step on the foot control to operate.



Control cup fill and bowl rinse functions from the button on the control panel.



To install syringe nozzle, press and hold the ring and push in the nozzle until you hear a click then loosen the pressure ring. Press both buttons simultaneously for the air/water spray.*



Remove the strong/weak suction handle from the assistant rack, the air suction activate automatically .



1. Press and hold the pressure ring.

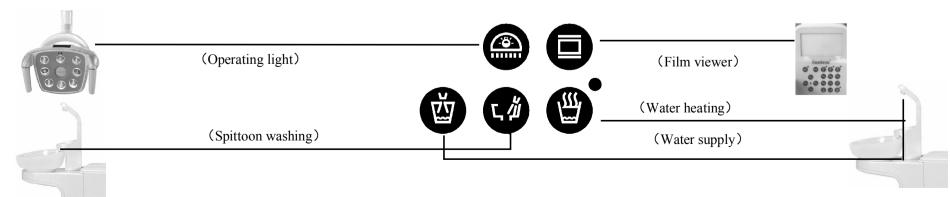
You can operate the chair manually or by using programmed presets from the foot switch or control panel. See P.7 for manual controls.

Manual buttons

Programmable button

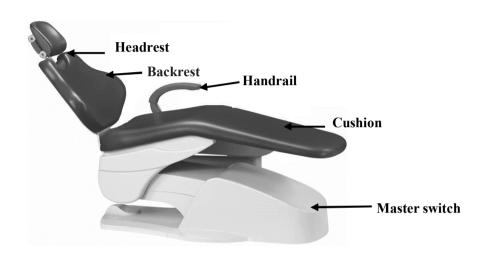


Use the control panel to activate different functions. For complete programming instructions, see P.16 & P.18.



DENTAL PATIENT CHAIR AND DELIVERY SYSTEM

DENTAL PATIENT CHAIR



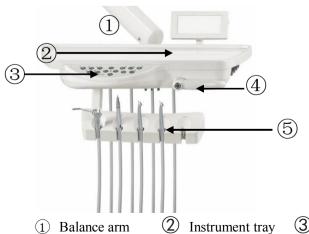
Headrest **Backrest** Handrail Cushion **Master switch** Foot switch

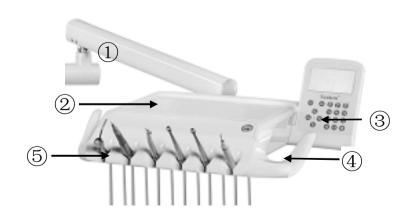
TR-D303 Dental patient chair

TR-D307 Dental patient chair

TR-D303 *LOW-MOUNTED DENTAL UNIT*

TR-D307 *LOW-MOUNTED DENTAL UNIT*





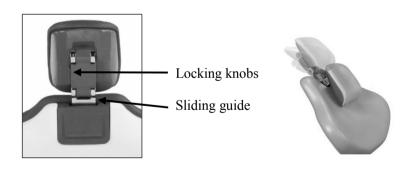
POWER AND SYSTEM STATUS



SAFETY FUNCTION



DOUBLE-ARTICULATING HEADREST



The chair and system power is controlled by the Master switch on the delivery system. To save energy, turn the power off at the end of the work day and during longer periods of non-use. The power should always be turned off before service.

When the power light on the control panel of dental unit illuminates, the system is on and ready for use. If the power light blinks, the safety function has been activated. See safety function below for more information.

Chair lockout program

The lockout program inhibits the operation of the dental unit when you remove a dental hand piece from its holder and step on the foot control. To resume normal patient chair operation, lift your foot off of the foot control disk.

The locking knob allows you to secure the headrest in a full range of positions.

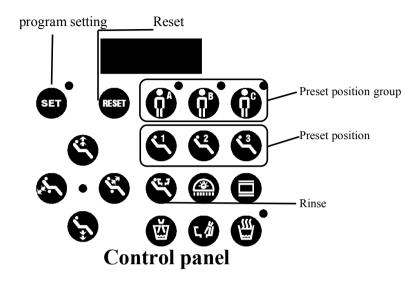
Release the headrest by keeping pressing the locking knob. Then adjust the headrest for a proper fit. Lock the headrest in the desired position by releasing the knob.

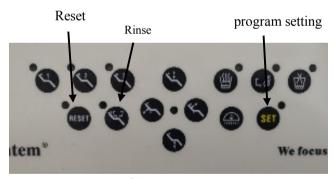
For height adjustment, slide the headrest and sliding guide up or down.



WARNING: When the sliding guide has reached its maximum recommended working height, there will be a warning line on the slider, and if the warning mark is found at a location, do not use the headrest at that location.

PROGRAMMABLE CHAIR POSITIONS





Control panel



NOTE: Please follow standard patient care precautions when using the chair preset position functions. To stop the chair at any point, push any chair positioning button on the foot switch or control panel.

DENTAL PATIENT CHAIR AND DELIVERY SYSTEM

You can operate the chair manually or by using programmed presets from the foot switch or control panel. See P.3 for manual controls. The programmable buttons vary depending on which device you use to control the chair;

Chair preset buttons

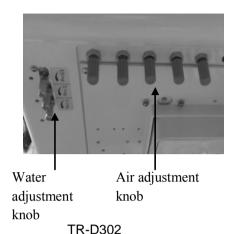
Control panel	Description and Action
6 6	Preset position group: Each preset positions group can be specified and save 3 preset positions.
888	Preset position: Adjust the chair to the preset position.
8	<i>Rinse:</i> Moves the chair to rinse position. Press again to move the chair to the previous position.
RESET	Reset: base cushion to minimize and chair to the front at the same time.

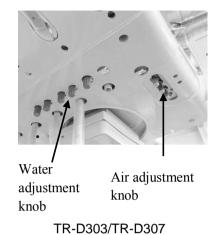
Use the program setting to assign and save chair preset positions.

To program the chair preset positions:

- 1. Use the manual controls to adjust the chair position as desired.
- 2. Press and release or SET. One beep indicates the programming mode is on.
- 3. press the chair position button you wish to reset (for example , press or).
- 4. Press and release or SET . One beep indicates the new setting is programmed into memory. And then setting light switch off.

WATER/AIR ADJUSTMENT





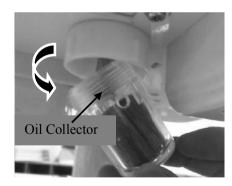
Use adjustment knobs to adjust water and air flow to your dental hand pieces. The plastic knob adjusts water flow to all dental handpieces. The metal knob adjusts air flow to all dental handpieces.

- 1. Lift the dental handpiece from the holder.
- 2. Press the left/right foot control disk to activate the dental handpiece.
- 3. Adjust the water flow and air flow by turning the adjustment knobs. Clockwise to decrease flow and counterclockwise to increase flow.



NOTE: Water and air adjustment knobs can completely shut off water/air flow.

OIL COLLECTOR



TR-D302/TR-D303/TR-D307



TR-D309

Service the oil collector at least once a week for normal use and more often for heavier use.

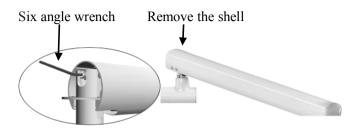
To service:

- 1. Disboard the oil collector cover which below the instrument tray and discard the used oil pad.
- 2. Fold a new pad (51 mm x 51 mm) into quarters and place inside the cover.
- 3. Reverse screw the oil collector cover closed.



CAUTION: Do not remove the foam pad located inside the oil collector cover. Foam pad can be taken out and cleaned with water and then put it back.

TENSION ADJUSTMENTS OF BALANCE ARM OF INSTRUMENT TRAY



adjust the balance arm through these steps if the instrument tray slide up and down:

- 1. Remove the shell.
- 2. The instrument tray loads normal use objects, rise the instrument tray to the highest position.
- 3. Use six angle wrench to adjust the tension of balance arm until the instrument tray keep balance in normal position. Screw counterclockwise to lower the tension if the instrument tray slide upwards and screw clockwise to increase the tension if the instrument tray slide downward.

CLEANING AND ASEPSIS RECOMMENDATIONS



Dental handpiece tubing cleaning and care

Use the flush system on the foot control to move more water through the tubing in less time.

To flush the tubing after each patient:

- 1. Disconnect the dental handpieces and take it down.
- 2. Hold all of the handpiece tubing over a sink or cuspidor bowl.
- 3. Step on the flushing switch for 20-30 seconds.



NOTE:

1.Discharge air and water from all handpiece tubings for 20-30 seconds after each patient.

2.It is required to use handpiece with anti-retract function on these handpiece tubings.

Touch and transfer surfaces

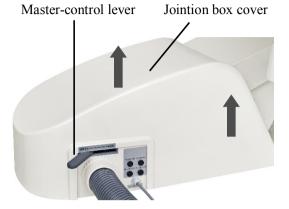
Touch surfaces are those areas that come into contact with hands and become potential cross-contamination points during dental procedures.

Transfer surfaces are those surfaces that are contaminated by contact with instruments and other inanimate objects.

Suntem* recommends barrier protection for all applicable touch and transfer surfaces. When used, barriers must be produced under the relevant legal provisions to countries/regions for protection. Refer to your national regulatory authorities for barrier recommendations specific to your location.

Barrier plastics should be removed and discarded after each patient treatment.

ADDITIONAL PERIODIC MAINTENANCE





Water filter

Air filter

The water and air inlets are located under the jointion box cover of the chair. Pull the floor box cover up to access the inlets.

The master-control lever is to control the air and water source for the dental unit. To prevent leaks, these valves should remain fully open during use, except while your system is under maintenance.

Air and water pass through a filter before entering the system. Replace these filters when they become clogged and cause restricted flow.

To check for air filter or water filter:

- 1. Turn the master-control lever off.
- 2. Press the syringe air button and watch the air pressure gauge, if the system air pressure drops by more than 0.10 MPa, replace the air filter.
- 3. Press the bowl rinse button, if the bowl rinse water pressure fades or if the water flow stops, replace the water filter.

To replace the filter:

- 1. Turn off the master-control lever.
- 2. Discharge the air and water from the tubings by operating the syringe buttons until air and water no longer sprays out.
- 3. Remove the filter housing from the assembly and remove the filter.

Replace the filter if it is clogged or discolored.



CAUTION: To ensure proper delivery system operation, the filter cover shall be completely sealed when installing the filter.

FOOT SWITCH

Water toggle



Round foot switch

TR-D303/TR-D307

Foot pedal:

- 1. Lift the dental handpiece from the holder.
- 2. Step on the foot control pedal to activate the dental handpiece, and release to stop.

Water toggle:

- 1. Flip the water toggle to the left to activate the water system.
- 2. Lift the dental handpiece from the holder and step on the foot pedal, water sprays out.

Chip-blow switch:

- 1. Lift the handpiece from the holder.
- 2.Step on the Chip-blow switch, and the handpiece blows out air from its water spray hole. Release the Chip-blow switch, the handpiece stops blowing.

Prepare before use: Lift the dental handpiece from the holder.

Water spray: Step on the Water pedal of the foot switch, and the handpiece blows out water. Release the Water pedal, the handpiece stops blowing.

Air switch: Step on the Air pedal of the foot switch, and the handpiece blows out air. Release the Air pedal, the handpiece stops blowing.

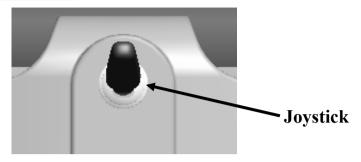
Chip-blow switch: Step on the Chip-blow switch, and the handpiece blows out air. Release the Chip-blow switch, the handpiece stops blowing.

Bowl rinsing: Step on the Spittoon washing switch, and the Spittoon washing head blows out water . Release the Spittoon washing switch, the Spittoon washing head stops blowing.

Cup filler switch: Step on the Cup filler switch, and the Cup filler head blows out water. Release the Cup filler switch, the Cup filler head stops blowing.

Backrest up and down: See P.12 for manual controls.

JOYSTICK



Backrest decline



Backrest

forward

Seat up

Seat down

Use the Joystick to position the chair.

Backrest decline:

Push the Joystick switch to the left, the backrest starts to decline. Release the Joystick when the backrest reaches the desired position. And the Joystick switch will automatically return to the original position. When the backrest drops to the lowest position, a Beep sound indicates that the limit switch has been activated and the backrest automatically stops declining.

Backrest forward:

Push the Joystick switch to the right, the backrest starts to go forward. Release the Joystick when the backrest reaches the desired position. And the Joystick switch will automatically return to the original position. When the backrest rise to the foremost position, a Beep sound indicates that the limit switch has been activated and the backrest automatically stops going forward.

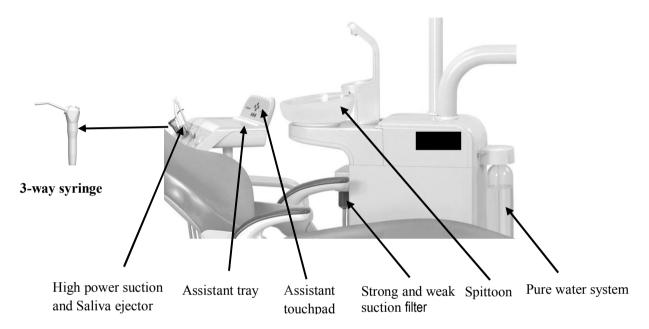
Seat down:

Push the Joystick switch downward, the chair starts to descend. Release the Joystick when the chair reaches the desired position. And the Joystick switch will automatically return to the original position. When the chair descend to the lowest position, a Beep sound indicates that the limit switch has been activated and the chair automatically stops descending.

Seat up:

Push the Joystick switch upward, the chair starts to rise. Release the Joystick when the chair reaches the desired position. And the Joystick switch will automatically return to the original position. When the chair descend to the top position, a Beep sound indicates that the limit switch has been activated and the chair automatically stops rising.

ASSISTANT TRAY & WATER UNIT



* Please refer to the Syringes Instructions For Use if curing light is included in your equipment.

TR-D303/TR-D307

PURE WATER SYSTEM



WARNING: Use only standard Pure water bottles. Do not use other bottles, including glass or plastic beverage bottles. Do not use damaged bottles. These can pose a serious safety hazard while pressurized. plastic water bottles cannot withstand heat sterilization. Attempting to do so will damage the bottle and your sterilizer.

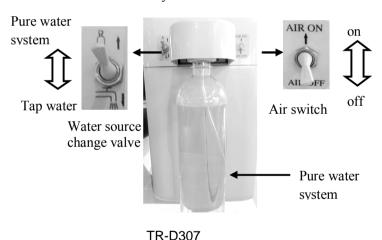


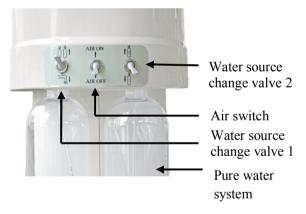
CAUTION: Use caution when using the Pure water system with accessories that require an uninterrupted water supply (e.g., scalers), as these could get damaged without a continuous water source. Do not use saline solutions, mouth rinses, or any chemical solutions not specified in this guide in your Purewater system. These may damage the system components and cause your dental unit to fail.

Pure water bottle supplies water to dental handpieces and syringes. To remove the bottle, turn off the air pressure switch (turn to the air off position), and then revolve the bottle after the discharge of air pressure in the bottle.

For proper installation:

- 1. Fill the bottle with water.
- 2. Insert the bottle.
- 3. Tighten the bottle counterclockwise, taking care not to overtighten.
- 4. Turn on the air pressure switch. A pressurization sound may be heard up after the system is turned on.





TR-D303

How to choose water source

Weather to use the Pure water system depends on the quality of water available from your municipal source. It's important to choose a source that consistently provides good water quality.

Tap water

If you have confidence in the quality of water from your municipal supply, consider using tap water.

Distilled water

If you have concerns about the quality of water delivered from your municipal supply, we recommend to use distilled water. When using a water distiller, carefully follow the cleaning and maintenance instructions for that device. Contamination may result if you do not follow the proper maintenance protocol.



CAUTION: Do not over tighten the bottle, otherwise you may damage the components. A pressurization sound may be heard up after the system is turned on and that is normal situation.

SOLIDS COLLECTOR



DANGER: Infectious waste may be present. Follow asepsis protocol to prevent cross contamination.



To ensure proper suction power and to maintain proper treatment room asepsis, clean and replace the suction filter at least twice a week.

To replace the filter:

- 1. Turn off the suction pump.
- 2. Open the suction collector.
- 3. Remove the filter from the collector.
- 4. Discard the filter according to your local regulations.
- 5. Insert new filter into the collector and tighten the collector back .



CAUTION: Do not clean the filter in the cuspidor. Doing so could blog the drain pipes.

SYRINGE NOZZLE CLEANING AND STERILIZATION



warning: syringe nozzles have been engineered and manufactured for use with this brand syringes. Use only this brand syringe nozzles in this brand syringes. Using syringe nozzle manufactured by a company other than this brand may result in syringe nozzle ejection. Tip ejection may result in ingestion or aspiration of the nozzle, requiring immediate medical attention.





CAUTION: Disposable syringe nozzle cannot be disinfected, and cannot be reused.



All syringe nozzles are considered critical items and must be heat sterilized or disposed off after each use.

Precleaning

Always clean the syringe nozzle before sterilization.

- 1. Remove the nozzle from the syringe.
- 2. Immerse the nozzle in cleaning agent until ready for ultrasonic cleaning.
- 3. Clean the nozzle ultrasonically. Follow the manufacturer's instructions that came with the ultrasonic cleaning device.
- 4. Purge all cleaning agents from the nozzle before sterilization.

Sterilization

Follow these steps to sterilize syringe tips:

- 1. Rinse the syringe nozzle in clear water.
- **2.** Flush with isopropyl alcohol or equivalent sterilant-disinfectant solution.
- **3.** Sterilize by a steam autoclave for at least 4 minutes at a temperature of 134 °C.

HIGH POWER SUCTION AND SALIVA EJECTOR ASEPSIS



If you use barrier film to protect the main body of the suction, clean and sterilize these instruments weekly, or more frequently as needed. If you do not use barrier film, or if you perform oral surgery, clean and sterilize these instruments after each patient.



CAUTION: Disposable suction nozzles are not sterilizable and should not be reused.



To clean and sterilize the suction:

- 1 Turn off the vacuum
- 2. Pick up the suction head from the suction.
- 3. Pull out the suction head from the tubing.
- 4. Clean and rinse the valve body using a mild detergent/water with a brush.
- 5. Allow the instruments to dry completely.
- 6. Sterilize by a steam autoclave for at least 4 minutes at a temperature of 134 °C.
- 7. Apply a light coat of petroleum-based lubricant on the O-ring of the suction valve.



CAUTION: Use only petroleum-based lubricant on O-rings. Silicone lubricants can damage the material.

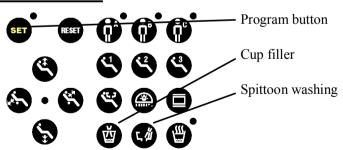
- 8. Reinstall the valve to the end of the tubing.
- 9. Verify that the suction operate and rotate smoothly.

SPITTOON



TR-D303/TR-D307

PROGRAM



The cup filler and bowl rinse functions are dependent on your specific configuration.

Cuspidor with control panel

If your dental unit includes a control panel, you can use the buttons on the control panel to operate and program bowl rinse and cup filler functions:

Button

Description and Action



Cup filler button:

• Press and release the cup filler button for a timed operation. The factory preset is a 3 second fill. The longest programmable timing is 99 seconds.

Bowl Rinse button:

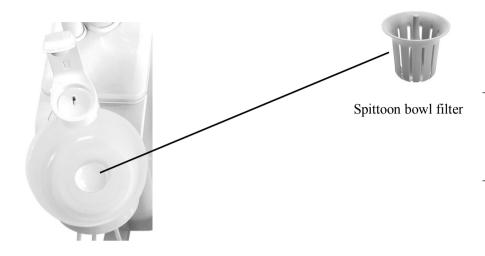


• Press the bowl rinse button for a timed operation. The factory preset is a 3minutes. Programmable timing can only select 3, 15 or 60 minutes.

To reprogram the timed cup filler or bowl rinse functions:

- 1. Press set on the control panel, then its indicator lights up.
- 2. When programming timing of cup filler, press cup filler button to the time required and then release the button. Or when programming timing of Bowl Rinse, press and release the Bowl Rinse button 1-3 times which respectively corresponding timing of 3 minutes, 15 minutes and 60 minutes.
- 3. Press set on the control panel, then its indicator extinguishes. You'll hear one beep confirming the program has changed.

CLEANING AND MAINTENANCE



Spittoon

The contoured spouts and smooth bowl of the spittoon provide for quick and easy cleaning. Remember to empty and clean the bowl screen every time you clean the spittoon.



CAUTION: Do not empty the wastes of the suction filter or spittoon filter into your spittoon. Doing so could clog the spittoon drain. After cleaning, always put back the filter to the spittoon bowl to prevent from clogging the drain.



CAUTION: Do not remove the spouts when cleaning the cuspidor. This will help prevent cleaning solutions from damaging the equipment and contaminating the water.

Gravity drain cleaning

At the end of each day, flush the spittoon to remove debris from the flexible drain tubing. If the spittoon is not flushed regularly, debris may build up and impair draining. To flush the spittoon, run the bowl rinse for about 60 seconds.

OPERATING LIGHT



*The lamp section has been revised, this content is invalid



CAUTION: (For more instructions on use, see instructions for use of the Operating light).

OPERATING LIGHT MAINTENANCE



WARNING: To avoid affecting the performance and life of the operating light, allow it to cool before cleaning the light shell. Never operate the light when cleaning.

For optimal performance and maximum life of your dental light shield, use only soap and water to clean the shield. Do not use alcohol-based solutions.

Follow these steps to remove and clean the shield:

- 1. Turn off the light and allow it to cool completely.
- 2. clean the shell with a non-abrasive, lint-free cloth which immerse in a small amount of mild, non-abrasive liquid soap and warm water.
- 3. Wash out the soap ingredients in lint-free cloth with warm water and clean the shell again.
- 4. Dry the shell with a lint-free cloth. Ensure that the shell is completely dry before turning on the operating light.



CAUTION: The lipa on the hands may affect the performance of operating light and severely limiting its use life. Use only soap and water to clean the shield. Do not allow alcohol-based solutions or other chemical disinfectants to come into contact with the dental light shield. These solutions and chemicals will shorten its life.



WARNING: Do not install the LED light source that has been damaged. Do not operate the operating light when LED light source has been damaged. Please contact your local authorized dealer for product service and replace the damaged LED light source before using the operating light.

SPECIFICATIONS



IMPORTANT: For chair accessory load capacity, electrical specifications, identification of symbols, and other regulatory requirements, refer to the data plate included with your equipment.

In order to make sure the normal use of the machine, the input water, air, power supply and its work conditions shall meet the following parameters:

- 1. **Air supply:** no oil; flux > 50 L/min (air pressure: 0.60 MPa).
- 2. **Water supply:**hardness < 25 degree;flux > 10 L/min (water pressure: 0.20 MPa).
 - 3. Power supply: a.c. 230 V, 50 Hz, 10A, 350 VA, protective grounding.
- 4. **Environment:**temperature 5°C 40°C , relative moisture 30% 75%;pressure altitude ≤ 3000 m.
- 5. **Operation space:** \geq 4 m (L) \times 3 m (W) \times 2 m (H);the ground is smooth and oblique angle less than 0.5°
 - 6. **Transportation conditions:** up, handle with care, anti-moisture.
 - 7.**Transportation environment:**temperature 5°C ~40°C,relative humidity≤80%.
- 8.**Storage environment:**temperature $5^{\circ}\text{C} \sim 40^{\circ}\text{C}$,relative humidity $\leq 80^{\circ}$,non corrosive gas and well ventilated indoor.
- 9.**Product shipment:**no more than two wooden boxes when transporting or storing wooden stacks.
 - 10. Product service life: 8 years.

	Basic parameter
1.Cabinet:	Water filtering aperture: ≤ 90 µm
	Air filtering aperture: ≤25 μm
2.Spittoon:	Water temperature: $40^{\circ}\text{C} \pm 5^{\circ}\text{C}$
	Flux ≥4 L/min
3.Saliva ejector:	Vacuum: > 15 kPa (water pressure: 0.20 MPa),
· ·	Pump speed: > 800 mL/min, suction pipe: 6 mm.
4.High suction:	Vacuum: > 25 kPa (air pressure: 0.60 MPa),
5. Instrument tray:	Disk locking device bearing quality: $\leq 5 \text{ Kg}$.
6. Foot switch:	Liquid inlet protection: IPX4.
7. Dental patient chair:	Loading capacity: 1323 N (135 kg). The highest position of the chair from the ground: 750 mm. The lowest position of the chair from the ground: 430 mm.
8.Fuse:	Power input: F6.3 AH/250 V Transformer output: T12 AH/250 V
9.Shockproof type:	I class type B applied part
10.Operational mode:	The patient chair belongs to intermittently running part, continuous operation 2 min, should rest 18 min.
11.Tube material:	PUR 90 A
12.Pipeline color	Trachea: transparent; Water pipe: transparent blue.
13.Parts list:	Fuse: Two F6.3 AH/250 V; Two T12 AH/250 V
	Two three-gun nozzle. Two disposable suction hose.

INTRODUCTION OF EMC

EMC

ATTENTION:



- ▲ The TR-D302/TR-D303/TR-D307/TR-D309 dental unit comply with YY 0505 standard EMC requirements
- ▲ The user should install and use the EMC information provided by the random document.
- ▲ Portable and mobile RF communication devices may affect the performance of TR-D302/TR-D303/TR-D307/TR-D309 dental unit, which can be used to avoid strong electromagnetic interference, such as proximity to mobile phones and microwave ovens.
- ▲ Please see the attachment for the guide and manufacturer's statement.

CAUTION:



▲ The TR-D302/TR-D303/TR-D307/TR-D309 dental unit should not be used or stacked with other equipment, if you have to close or stacked use, you should observe the verification in the use of its configuration can be normal operation.

▲ In addition to the cables sold by the manufacturer of the TR-D302/TR-D303/TR-D307/TR-D309 dental unit as a spare part for internal components, the use of prescribed accessories and cables may result in increased or increased immunity from the dental unit.

WARRANTY





TR-D303 TR-D307



CAUTION: According to the intended use of the device, The dental therapy unit is a kind of dental equipment which specially produced and provided to qualified person using in the dental clinical use and related operating steps.

- ▶ Vendor warrants all products against defects in materials or workmanship for one year from time of delivery.
- ▶ Vendor sole obligation under the warranty is to provide parts for the repair, or at its option, to provide the replacement product (excluding labor). The buyer shall have no other remedy. All special, incidental, and coincidental damages are excluded.
- ► The warranty does not cover damage resulting from improper installation or maintenance, accident or misuse.
- ► The warranty does not cover damage resulting from the use of cleaning, disinfecting or sterilization chemicals and processes.
- ► The warranty also does not cover light source. Failure to follow instructions provided in the Instructions For Use (operation and maintenance instructions) may void the warranty.
- ► No other warranties as to merchantability or otherwise are made. For service information, contact your local authorized dealer. Check with local codes for installation of this product.

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