

ProSolo™ Portable Delivery Unit

OPERATION MANUAL

© Copyright 2020 DNTLworks Equipment Corporation

All Rights Reserved



DNTLworks Equipment Corporation
7300 South Tucson Way
Centennial, Colorado 80112 USA

Toll Free: (800) 847-0694
Main: (303) 693-1410
Fax: (303) 693-6189

Contents

Introduction 3

Customer Service 3

DNTLworks Limited Warranty..... 3

 Returns..... 4

Description of Unit..... 4

 Unit Controls 5

 Air System 5

 Water System..... 5

 Vacuum System..... 5

 Unit Controls ProSolo..... 5

Specifications 8

Operation 8

 Setup 8

 Water System..... 9

 Handpiece Operation..... 10

 Three-way Syringe 11

 Vacuum System..... 11

Dental Office Infection Control Guidelines (CDC)..... 13

 Barrier Techniques 13

 Cleaning and Disinfection of Dental Unit and Environmental Surfaces 13

 Use and Care of Handpieces and Other Intra-oral Dental Devices..... 14

 Other Important Issues 14

Shut Down Instructions..... 15

Maintenance 17

Introduction

Thank you for purchasing the ProSolo™ Dental Delivery Unit from DNTLworks Equipment Corporation. The information contained in the manual should answer any questions regarding service and operation of your ProSolo™ unit.

All authorized personnel who operate, maintain, or service your ProSolo™ unit should carefully review this manual before attempting to operate, perform maintenance on or service the unit. Your ProSolo™ unit should be operated and maintained by trained personnel only. Should questions or problems arise, contact our Customer Service Department.

Although your ProSolo™ unit has been designed and tested for maximum safety and optimum performance, it is sold with the express understanding that DNTLworks, its subsidiaries, agents and representatives will not accept any responsibility for the following, including, but not limited to:

- 1) Operator's lack of knowledge, negligence or carelessness in the operation of this equipment.
- 2) Equipment not properly maintained or serviced.
- 3) Injury to personnel or patients from improper use.
- 4) Modification or tampering of any kind.

Customer Service

In the event you require assistance with your unit, please call 1-800-847-0694 or 303-693-1410 and speak with one of our customer service representatives. Our service hours are from 8:00 a.m. to 5:00 p.m., Mountain Standard Time, Monday through Friday.

In most instances, service problems can be solved over the telephone. If service is required, you may ship the unit to our manufacturing facility for repair. Warranty service will be performed in accordance with the DNTLworks' Limited Warranty. Non-warranty service will be provided at reasonable parts and labor costs.

DNTLworks Limited Warranty

DNTLworks warrants to the purchaser that these products are free of defects in materials and/or workmanship for three (3) full years from date of delivery, on a "parts only" basis. In addition, DNTLworks extends a ninety (90) day labor and shipping warranty from the date of delivery for all products we manufacture. Shipping charges incurred to the factory under warranty purposes will be the responsibility of the owner.

During the warranty period, all parts which, upon inspection and examination by DNTLworks, are proven to be defective, will be replaced free of charge. All decisions concerning whether a part will be repaired or replaced and the manner, method, and extent of such repair or replacement will be at the sole discretion of DNTLworks. The responsibility of DNTLworks does not include repair and replacement cost resulting from misuse, abuse, improper maintenance, or normal wear and tear.

DNTLworks will pay for labor costs for warranty service for a period of 90 days from the date of purchase. DNTLworks sole obligation under said warranty is to repair, or, at its option, replace the defective part. The buyer will have no options.

Warranties for products not manufactured by DNTLworks, but sold in combination with DNTLworks products, will be honored by DNTLworks for the entire duration of the original manufacturer's warranty period.

The warranty will be voided by alterations, tampering with, improper installation or maintenance, accident or modification of the equipment, with the exception of work performed by DNTLworks or one of its authorized service agents. This warranty expressly excludes all damage to the products resulting from careless or neglectful transportation. DNTLworks will in no event be responsible for any work done without first obtaining DNTLworks' written consent.

This warranty is made expressly in lieu of all other warranties, expressed or implied, including any implied warranties of merchantability or fitness for a particular purpose. No employee, agent, franchise, dealer or other person is authorized to give any warranties of any nature on behalf of DNTLworks. Except as provided herein, DNTLworks will have no liability or responsibility to the customer or any other person or entity with respect to any liability, loss or damage caused or alleged to be caused directly or indirectly by equipment sold, leased, or furnished by DNTLworks, including, but not limited to, any interruption of services, loss of business or anticipatory profits or consequential damage arising out of or connected with the sale, lease, use, or anticipated use of equipment. Notwithstanding the above limitations and warranties, DNTLworks liability hereunder for damages incurred by customer or other will not exceed the amount paid by customer for the particular equipment involved.

Returns

Purchased goods may not be returned without the express written consent of DNTLworks and a Return Goods Authorization Number (RGA#). All items must be returned within 14 days of initial delivery and are subject to a 15% restocking charge. Special order items cannot be returned for credit consideration. Freight charges on approved return items shall be borne by the customer.

Description of Unit

ProSolo™ dental delivery units are lightweight, basic dental delivery units which allow the operator to easily store, transport and set up the system in a few minutes. The delivery units come with handpiece hookup and a three-way syringe and suction system. Optional two handpiece system.

Unit Controls

All controls on the ProSolo™ units are designed for simple, manual operation. Both air and water flow are controlled by a needle valve.

Air System

Compressor will run the water system, vacuum system and power the handpiece. There is an air tank which is regulated to control air pressure for the whole system. The air tank is equipped with a manual drain system. It should be drained at the end of each day of use.

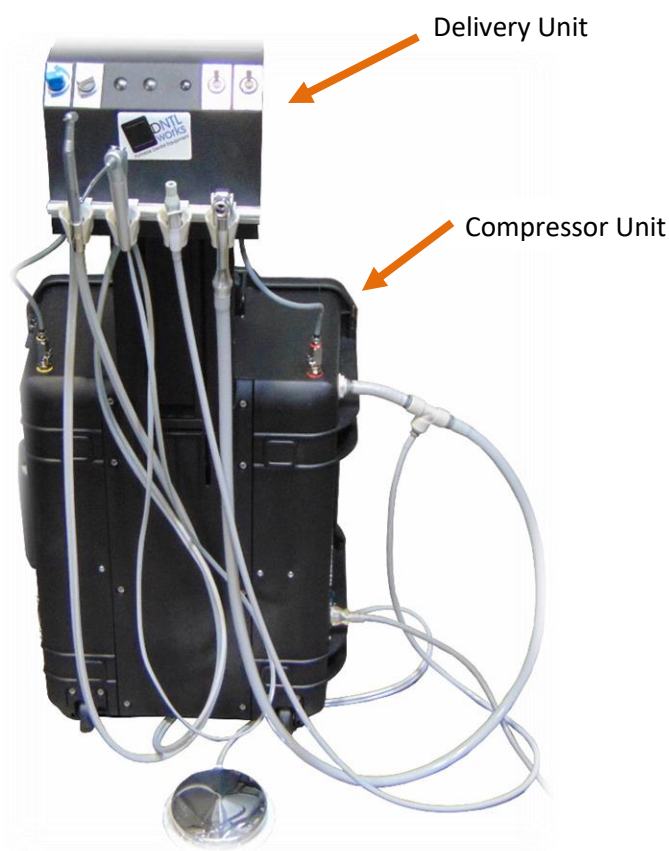
Water System

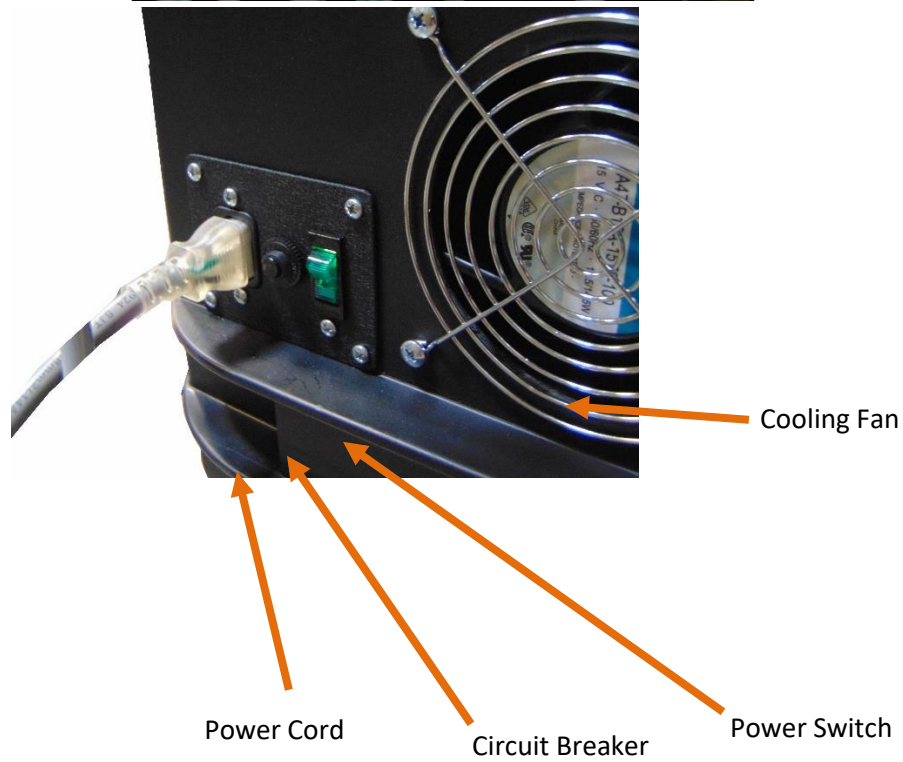
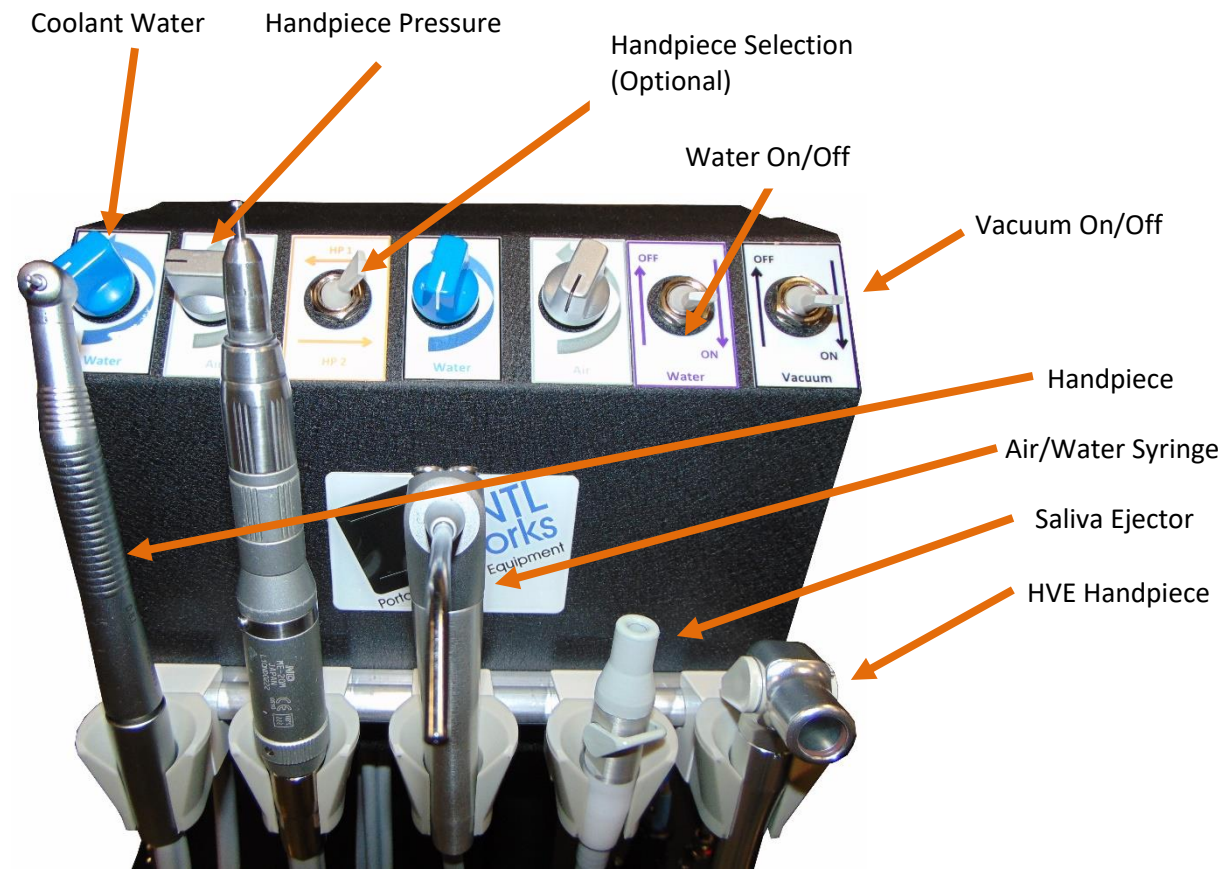
Coolant water flow to handpiece is controlled by using the foot control and turning on the water adjustment knob. Syringe air and water flow can be adjusted by the water regulator. Water will come out of the syringe when the water system is pressurized and the water button on the syringe is pressed.

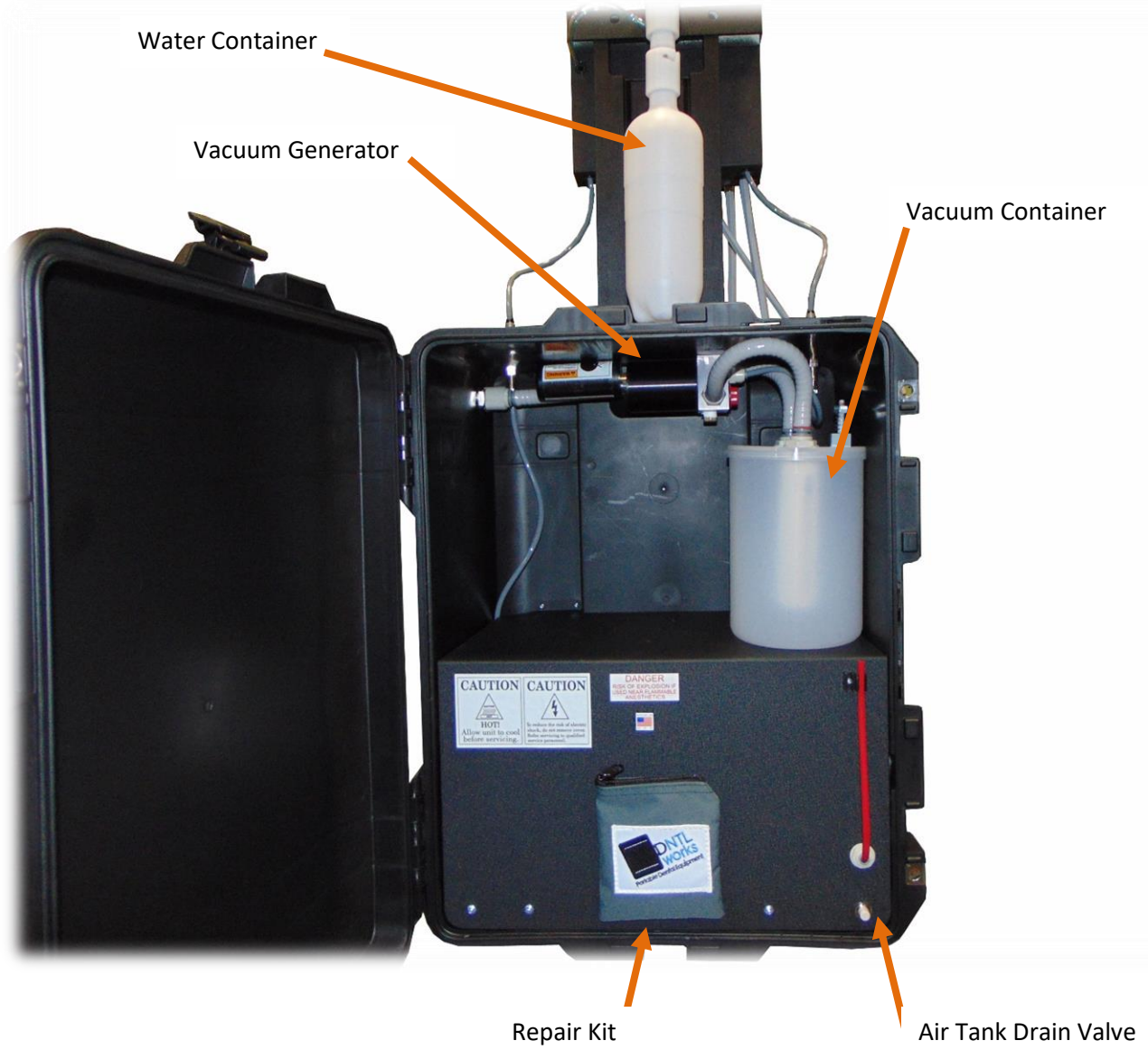
Vacuum System

Vacuum is created by use a vacuum generator. Has a high volume evacuation handpiece (HVE) and a saliva ejector. There is a vacuum container to trap moisture and debris evacuated from the patient. The vacuum system should be cleaned after each patient and at the end of each day.

Unit Controls ProSolo
















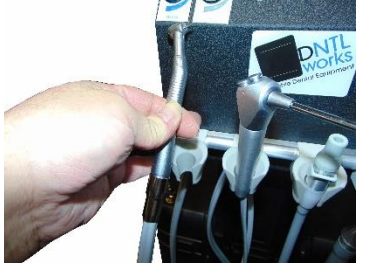



Specifications

Specification	ProSolo™
Weight	25lbs
LxWxH	22"x13"x11"
Voltage, Frequency	120Vac 60Hz
Amps, Wattage	7Amps, 840W
Operation Pressure	90psi
Water Container	1 Liter
Vacuum Container	2 Qt

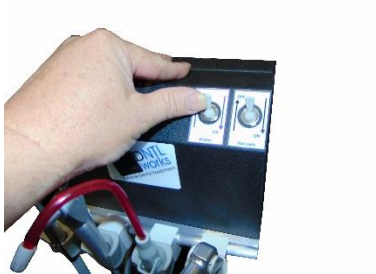

Operation


Setup

 <p>Extend handle.</p>	 <p>Install delivery Unit.</p>
 <p>Connect vacuum airline. (Yellow)</p>	 <p>Connect airline. (Red)</p>
 <p>Connect electrical cable. (Optional with fiber optic or scaler)</p>	 <p>Place foot control near the operator.</p>



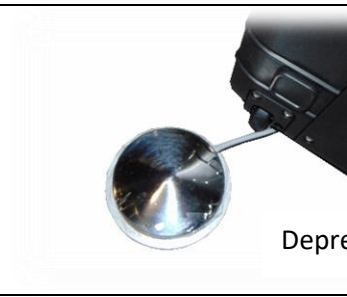


 <p>Place handpiece tubing and syringe in holders.</p>	 <p>Install vacuum lines.</p>
 <p>Place HVE and saliva ejector in holders.</p>	 <p>Fill and install water bottle.</p>
 <p>Install handpiece.</p>	 <p>Install saliva ejector and HVE tips.</p>
 <p>Connect power cord to wall outlet and to unit.</p>	 <p>Turn on power switch.</p>

Water System




 <p>Turn off water valve.</p>	 <p>Remove water bottle and fill with water. Distilled water is recommended.</p>
--	---

	<p>Turn on water valve.</p>	
---	-----------------------------	--




Handpiece Operation

	<p>Select handpiece. (Optional for second handpiece)</p>	<p>Remove handpiece from holder.</p> 
	<p>Depress foot control.</p>	<p>Adjust handpiece water adjustment knob for coolant water flow. If water is not needed, leave valve closed.</p> 
	<p>Adjust handpiece pressure with the air valve. Handpiece pressure can be set from 0 to 65 psi.</p>	
<p>Always clean handpieces between patients. See Dental Office Infection Controls Guidelines CDC below.</p>		<p>Follow manufacture instructions for maintenance and service.</p>

Three-way Syringe

 <p>Water only.</p>	 <p>Air only.</p>
	<p>Air and water (mist). Water toggle valve must be turned on to both air and water to the syringe. You can use disposable syringe tip kits. (A-dec type disposable tip kit). Always clean syringe between patients. See Dental Office Infection Controls Guidelines CDC, below.</p>

Vacuum System

<p>Always clean vacuum system between patients. See Dental Office Infection Controls Guidelines CDC, below. Always empty container between patients. When using either saliva ejector or HVE, make sure the other valve is closed. Cannot used Saliva Ejector and HVE at the same time.</p>	
 <p>Turn on vacuum system.</p>	<p>Open valve. Saliva ejector or HVE valve.</p> 
 <p>Turn off power switch.</p>	
<p>Cleaning between patients at the end of day:</p>	

	<p>Remove hoses from container. Remove lid and empty container.</p>	<p>Reinstall lines.</p>	
	<p>Mix non-foaming vacuum cleaning solution.</p>	<p>Turn on vacuum system.</p>	
	<p>Run cleaning solution through saliva ejector valve and HVE Valve. Slowly run solution through HVE valve intermittently.</p>	<p>Turn off power switch. Empty container. As describe above.</p>	
<p>Cleaning flote system.</p>			
	<p>Remove float tube. Clean bushing and make sure it is seated to bulkhead.</p>	<p>Remove balls and clean. Clean tube and balls</p>	
	<p>Replace balls. Make sure the ball without seams is on the top.</p>	<p>Install float tube making sure no slot on the float tube is on the side of intake bulkhead.</p>	
<p>Cleaning between patients and at the end of day:</p> <ol style="list-style-type: none"> 1) Remove any remaining waste in vacuum bottle by disposing of contents in a CDC-approved manner. See Dental Office Infection Control Guidelines CDC, below. 2) Reattach lid to bottle. 3) Mix one quart of evacuation cleaner, turn on vacuum system, and suck the cleaner into vacuum container using saliva ejector. 			

- 4) Dispose of cleaner waste in CDC-approved manner.
- 5) Wipe down outside of the bottle and tubings with cleaner.
- 6) Clean tubings and handpieces in a CDC-approved manner.
- 7) Clean unit in a CDC-approved manner.

Dental Office Infection Control Guidelines (CDC)

DENTAL OFFICE INFECTION CONTROL GUIDELINES FOR THE PROTECTION OF PATIENTS AND DENTAL CARE PERSONNEL AS RECOMMENDED BY THE UNITED STATES CENTERS FOR DISEASE CONTROL (CDC)

NOTE: A medical history should be taken at the initial patient visit and on recall, updated with notations made on the chart.

Barrier Techniques

- 1) Dentists, hygienists and assistants should wear new gloves for each patient treated. Hands should always be washed with liquid soap before and after treatment, contact with patients or after touching inanimate objects likely contaminated by blood or saliva, and before leaving the operatory. Remove torn, cut or punctured gloves immediately, wash hands, and re-glove before completion of dental procedures.
- 2) During all treatment procedures, dentists, hygienists and assistants should wear face masks and protective eyewear, or in lieu of both of these, a chin-length plastic face shield.
- 3) Reusable and/or disposable gowns, laboratory coats or uniforms should be worn when street clothing may be soiled with blood or other body fluids. Gowns should be changed at least daily or when visibly soiled with blood.

Cleaning and Disinfection of Dental Unit and Environmental Surfaces

- 1) After treatment of each patient and at the completion of daily work activities, countertops and dental unit surfaces that may have become contaminated with patient material should be cleaned with disposable toweling, using an appropriate cleaning agent and water as necessary. Surfaces then should be disinfected with a suitable chemical germicide.
- 2) A chemical germicide registered with the EPA as a “hospital disinfectant” and labeled for “tuberculocidal” (i.e., mycobactericidal) activity is recommended for disinfecting surfaces that have been soiled with patient material. These intermediate level disinfectants include phenolics, iodophors, and chlorine-containing compounds. Because mycobacteria are among the most resistant groups of microorganisms, germicides effective against mycobacteria should be effective against many other bacterial and viral pathogens. A fresh solution of sodium hypochlorite (household bleach) prepared daily is an inexpensive and effective intermediate-level germicide. Concentrations ranging from 500 to 800 ppm of chlorine (a 1:100 dilution of bleach and tap water or 1/4 cup of bleach to 1 gallon of water) are effective on environmental surfaces that have been cleaned of visible contamination. Caution should be exercised since chlorine solutions are corrosive to metals, especially aluminum.

- 3) Low-level disinfectants - EPA registered “hospital disinfectants” that are not labeled for “tuberculocidal” activity (e.g., quaternary ammonium compounds) - are appropriate for general housekeeping purposes such as cleaning floors, walls and other housekeeping surfaces. Intermediate and low-level disinfectants are not recommended for reprocessing critical or semi-critical dental instruments.
- 4) Before high-level disinfection or sterilization, and while wearing heavy duty rubber (household) gloves, ultrasonically clean (preferred) or scrub instruments in order to remove debris.

Use and Care of Handpieces and Other Intra-oral Dental Devices

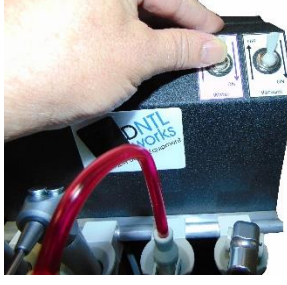








- 1) Routine between-patient use of a heating process capable of sterilization (i.e., steam under pressure (autoclaving), dry heat, or heat/chemical vapor) is recommended for all highspeed dental handpieces, lowspeed handpiece components used intra-orally, and reusable prophylaxis angles. Manufacturers’ instructions for cleaning, lubrication, and sterilization procedures should be followed closely to ensure both the effectiveness of the sterilization process and the longevity of these instruments. According to manufacturers, virtually all highspeed and lowspeed handpieces in production today are heat tolerant, and most heat-sensitive models manufactured earlier can be retrofitted with heat-stable components.
- 2) Internal surfaces of highspeed handpieces, lowspeed handpiece components, and prophylaxis angles may become contaminated with patient material during use. This retained patient material then may be expelled intra-orally during subsequent uses. Restricted physical access - particularly to internal surfaces of these instruments - limits cleaning and disinfection or sterilization with liquid chemical germicides. Surface disinfection by wiping or soaking in liquid chemical germicides is not an acceptable method for reprocessing highspeed handpieces, lowspeed handpiece components used intra-orally, or reusable prophylaxis angles.
- 3) Highspeed handpieces should be run to discharge water and air for a minimum of 20-30 seconds after use on each patient. Handpieces, in addition, should be heat sterilized between use on patients. This procedure is intended to aid in physically flushing out patient material that may have entered the turbine and air or water lines. Use of an enclosed container or high-velocity evacuation should be considered to minimize the spread of spray, splatter, and aerosols generated during discharge procedures. Additionally, there is evidence that overnight or weekend microbial accumulation in water lines can be reduced substantially by removing the handpiece and allowing water lines to run and to discharge water for several minutes at the beginning of each clinic day. Sterile saline or sterile water should be used as a coolant/irrigation when surgical procedures involving the cutting of bone are performed.

Other Important Issues







- 1) A “no-touch” technique (e.g., hemostats or needle holders), should be utilized when using “sharps” (needles, scalpels, blades, etc.).
- 2) In the operatory, sterilized and decontaminated instruments, charts, and other objects should be protected from patient contact.
- 3) “Sharps” should be disposed of in puncture proof containers; hazardous and/or infectious waste materials, which include “sharps,” should be disposed of in a manner consistent with prevailing local laws.
- 4) All dental personnel should be encouraged to receive immunization protection whenever possible, e.g., hepatitis B immunization.

5) All impressions, models and devices should be disinfected before submission and upon receipt from the dental laboratory.

Shut Down Instructions

	<p>Turn off water.</p>	<p>Remove water bottle and empty and reinstall.</p>	
	<p>Turn water back on.</p>	<p>Depress water button until no more water is coming out of syringe.</p>	
	<p>Open water valve fully.</p>	<p>Hold handpiece over container.</p>	
	<p>Depress foot control until no water is coming out of handpiece.</p>	<p>Turn off water valve.</p>	
	<p>Remove vacuum container. Empty and reinstall container.</p>	<p>Mix non-foaming vacuum cleaning solution.</p>	

	<p>Turn on vacuum system.</p>	<p>Run cleaning solution through saliva ejector valve and HVE Valve. Slowly run solution through HVE valve intermittently.</p>	
	<p>Turn off vacuum system.</p>	<p>Remove vacuum container and empty.</p>	
	<p>Remove float tube. Clean bushing and make sure it is seated to bulkhead.</p>	<p>Remove balls and clean. Clean tube and balls</p>	
	<p>Replace balls. Make sure the ball without seams is on the top.</p>	<p>Install float tube making sure no slot on the float tube is on the side of intake bulkhead.</p>	
	<p>Reconnect vacuum container.</p>	<p>Turn off power switch.</p>	

	<p>Disconnect power cord from unit and wall plug in.</p>		<p>Close both water and air valves.</p>
	<p>Drain air tank. Remove tubing from holder.</p>		<p>Place rag over end of tubing.</p>
	<p>Depress button until all air and moisture is relieved from tank.</p>		<p>Replace tubing.</p>

Maintenance

The following visual checks should be performed before operating the unit.

- 1) Look for mechanical damage that could affect safe operation, including, but not limited to the following:
 - a. Cracks, in power cord.
 - b. Splits in air or water lines.
 - c. Cracks in water and vacuum containers.
 - d. Cracks, kinks or splits in handpiece tubing, syringe tubing and vacuum tubings.
- 2) Look for loose or missing items, including, but not limited to, the following:
 - a. Loose or missing screws, nuts and/or bolts.
 - b. Loose handles.

Should mechanical or other damage be noted that would affect safe operation, the unit should not be used until repair or replacement of defective items is completed.