



Committed To Innovation

**Operator's Manual for the
Alternative 4441 Cart System**

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Control Unit and Cart Frame

Operation and Features

The positions of the handpiece holders are adjustable. See the section below on adjustments.

The **drive air pressure gauge** is on the left side of the control panel.

The **water coolant on-off toggle** is on the right side of the panel.

Water coolant flow control knobs are on the underside of the control unit. The adjustment knobs are positioned in the same left-to-right order as the automatic handpiece holders.

Adjustment screws for drive air pressure are inside the control unit, on the control block. See the section below on adjustments.

Syringe

Tubing connections for the Quick-Clean syringe have been made inside the control unit. The syringe is packed in a shipping envelope, with instructions and a repair kit attached. Place the syringe in the far left holder on the tool bar.

Foot Control

Pressure to any part of the foot control disc provides drive air to the selected handpiece. Air coolant is also activated by stepping on the foot control disc.

Vacuum Valves

The saliva ejector and the two HVE's will be in holders to the right of the handpiece holders. See the instructions for the vacuum package below.

Cleaning and Maintenance

Note

Do not use powdered cleansers, scouring pads, or abrasive scrubbers on any of the finished metal surfaces in this unit (for example, the Quick-Clean syringe, the foot control disc, or the cart frame). Sodium Hypochlorite will also damage these surfaces.

Control Unit and Cart Frame

The control panel, cart top and other control unit surfaces can be cleaned with most commonly available surface disinfectants. Do not use Sodium Hypochlorite, or any cleansers containing large concentrations of alcohol. These may cause discoloration on the painted and finished metal surfaces of the control head and cart frame. Do not use abrasives on the cart frame. They may damage the metal finish.

System Flush

The Center for Disease Control and the American Dental Association can provide recommendations on when to flush your system, and for how long.

Adjustments

Handpiece Holders

Each handpiece holder is attached to the tool bar with two set screws, located on the back of the holder. Tighten the two set screws located under the holder to tighten the holder to the holder bar. To reposition a holder, loosen the set screws, move the holder to the desired location, and retighten the set screws. You will need a 3/32" hex key.

Cart

The height of the control unit can be adjusted. Loosen the knob on the upright post of the cart frame. Raise or lower the control unit as desired, and retighten the knob firmly. **Make sure the weight of the control unit is supported when you loosen the knob on the post.**

Note

All of the following adjustments should be made with a burr in the handpiece. Running a handpiece without a burr installed can damage the handpiece.

Drive Air Pressure

You will need a small, flat blade screwdriver to make these adjustments.

Install a burr in the handpiece you wish to adjust. Place the lockout toggle for this handpiece in the active position. Turn the water coolant toggle to the off position.

Lift the cover on the control unit and locate the control block.

The Drive air adjustment screws are located on top of the control block. They are in the same order, from left to right, as the handpiece holders.

Position the screwdriver in the adjustment screw for the handpiece you are adjusting.

Press on the foot control disc until the handpiece is running at maximum speed.

Turn the adjustment screw counterclockwise until the pressure gauge reads a little more than the recommended pressure. Then turn the screw clockwise until the gauge indicates the recommended pressure.

Repeat this procedure for the other two handpieces.

Water Coolant

Turn the water coolant on-off toggle to the on position.

Activate the handpiece you wish to adjust by turning the toggle on the handpiece toward the red dot.

With a burr in the handpiece, press on the foot control until the handpiece is running at half speed. Turn the water coolant flow control knob for this handpiece to provide a fine mist of water around the burr. Very little water coolant is required.

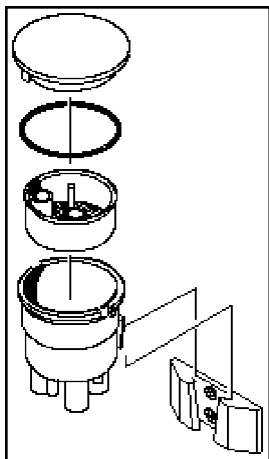
Repeat this procedure for the other two handpieces.

Economy Vacuum Package (5800)

Operation and Maintenance

Vacuum is supplied to the two universal valves and the saliva ejector by turning on the central vacuum system.

Solids Collector



The solids collector contains a removable screen, which should be emptied, cleaned and disinfected at least once a week (see *Figure 1*). To remove the lid from the solids collector, shut off the central vacuum, or open one of the universal valves if you leave the central vacuum on. The screen can be cleaned and reused or replaced with a new one.

External surfaces of the solids collector can be cleaned with a solution of warm water and a mild detergent.

The solids collector is equipped with a fitting for a Hydrocolloid Drain. To use, drill a through hole from the fitting into the solids collector. You will need a 7/64" or a number 35 drill bit.

Figure 1

Vacuum Valves (5710 and 5510)

After each patient, pull off the rubber tip, replace the saliva ejector basket and clean the valve by drawing clean water through it, working the valve open and closed several times. Then, remove the valve from the water source and leave it open until all of the water has cleared the hoses. Wash the outside surfaces with a solution of mild detergent and warm water. Dry with a clean, soft cloth. Clean the HVE's in the same way.

At the end of the day, clean as above, and scrub the inner surfaces of the valve with the cleaning brush provided. Eco Vac (*Part Numbers 5835 and 5837 in the DCI catalog*) is an effective vacuum system cleaner that is also non-toxic and environmentally safe.

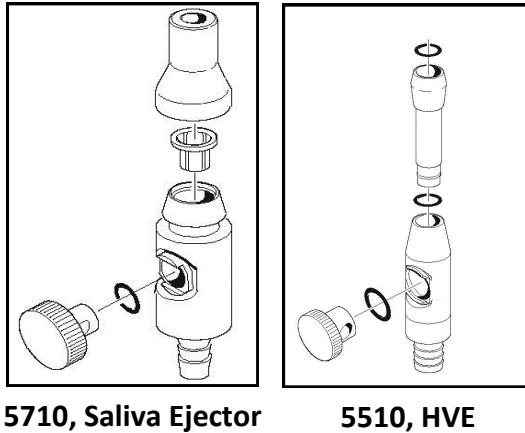


Figure 2

Periodically clean and lubricate the internal parts of the valves, when operation becomes stiff or sticky. First, draw water through the valve as above. Then, remove the knob from the body by pulling firmly on the knob. Clean the inner surfaces with a clean, soft cloth and apply a small amount of silicone lube to the O-ring shown in *Figure 2*. To replace the knob, slide it into the hole, then press firmly until the O-ring snaps into place. If the O-ring shows signs of wear, it should be replaced. To remove the O-ring, use a dental pick or other sharp instrument to hook the O-ring. Gently pull it out, being careful not to scratch the sealing surfaces. Apply a small amount of silicone lube to the new O-ring. Gently stretch it over the knob and into the O-ring groove. Be careful not to cut or scratch the O-ring on the sharp edges of the hole in the knob.

The following disinfectants are safe to use on the vacuum rotary valve; Birex SE®, Sporidicin®, Coldspor, Procide-D® Spray, Sterall Plus Spray, Asepticide, Biocide, Promedyn, Iodo-Five, Wescodyne and Cavicide.

Note

Ultrasonic cleaning is not recommended for any vacuum valves that have aluminum parts. Many of the solutions used in ultrasonic cleaners will permanently damage the finish on these parts. For the same reason, Sodium Hypochlorite should never be used as a cleaning agent on this type of valve.

Do not use powdered cleansers, scouring pads or abrasive scrubbers on any of the aluminum parts, as these products will also cause damage. Remove stubborn debris by soaking in warm water.