

*Committed To Innovation*

**Operator's Manual for the  
Alternative 4142 Cart System**

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## **Control Unit and Cart Frame**

### ***Operation and Features***

The **handpiece selector toggle** is in the center of the control panel. Handpiece number two is the high speed, water cooled handpiece.

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

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

The **water coolant flow control knob** is on the underside of the control unit, just below the on-off toggle.

**Adjustment screws for drive air pressure** are on the underside of the unit, just below the handpiece selector toggle.

### **Syringe**

Tubing connections for the 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 two 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.

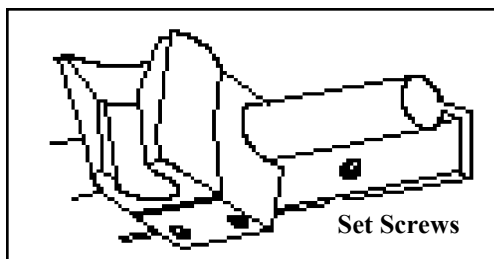
## System Flush

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 underside of the holder. 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 (see *Figure 1*).

*Figure 1*

### 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 the 3/32" ball driver provided with the syringe kit to make

this adjustment. To locate the drive air adjustment screws, trace the handpiece tubings from the handpiece to their connection at the control head. The adjustment screws are directly in front of the tubing connections.

Install a burr in the number two handpiece. Turn the water coolant toggle to the off position, and the handpiece selector to the number two position.

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

Using the 3/32" ball driver, turn the adjustment screw for the number two handpiece 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 number one handpiece.

## **Water Coolant**

Turn the handpiece selector toggle to the number two position. Turn the water coolant toggle to the on position (toward the blue dot).

Install a burr in the number two handpiece. Press on the foot control until the handpiece is running at half speed. Turn the water coolant flow control knob to provide a fine mist of water around the burr. Very little water coolant is required.

## **Economy Vacuum Package (5800)**

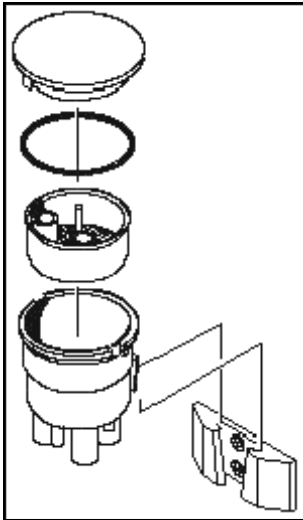
### ***Operation and Features***

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 2*). 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.

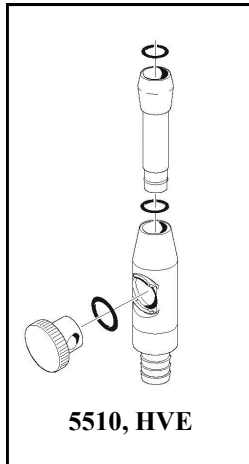
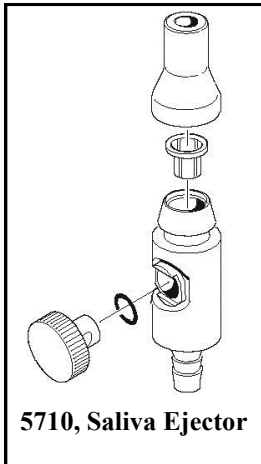
The solids collector is equipped with a fitting for a Hydrocolloid Drain. To use, drill a through hole from the fitting into the solids collector. You will need a 7/64" or a number 35 drill bit.

### 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

*Figure 2*

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.



*Figure 3*

**At the end of the day**, clean 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.

**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 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.**