

# System 6000

Operation and Maintenance Instructions  
Model 6543 Assistant's Wall Mount

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DCI

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INTERNATIONAL

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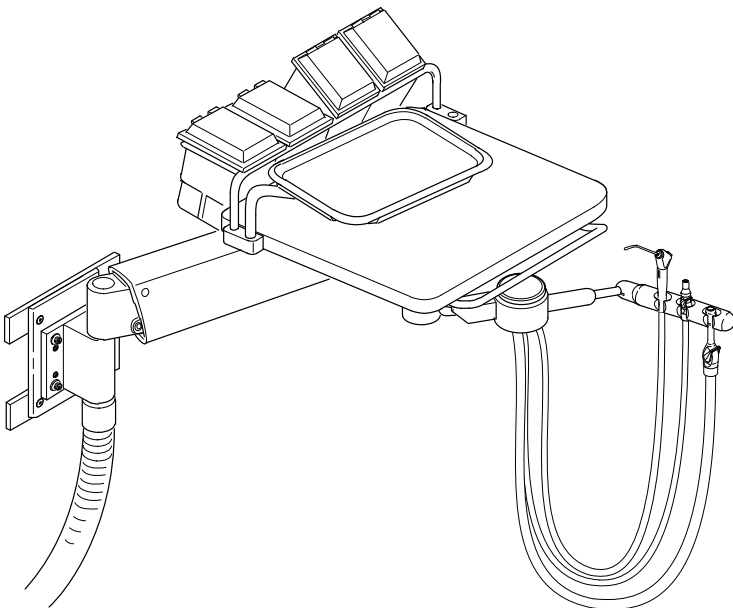
## ***Model 6543*** ***Introduction***

Thank you for your purchase of the ***DCI System 6000*** dental unit. This booklet contains detailed information about the operation and care of this state-of-the-art system. Carefully following these instructions will assure that your new dental equipment will give you years of reliable service.

The **Model 6543 Assistant's Wall Mount**, shown below, features DCI's ***System 6000*** Assistant's Instrumentation. The unit is designed for mounting on a wall or cabinet at the head of the dental chair

The assistant's instruments are mounted on pivoting brackets that allow instant left-right convertibility. The swing-out tray holder can also be moved to either side of the work surface.

The work surface is mounted on an adjustable height, heavy duty arm. Mounted on the back of the work surface is a storage organizer to provide convenient access to frequently used consumables.



**Model 6543 Assistant's Wall Mount**

## Section One Features and Controls

### The Assistant's Instrumentation

#### Arm and Holder

The **Model 6543** features the assistant's instrument holder on a movable bracket mounted beneath the work surface.

The instrument holder accommodates a saliva ejector valve, an HVE valve, and the autoclavable syringe. The holder swings horizontally, and can be rotated on its axis, for maximum flexibility in positioning the instruments,

#### Solids Collector

On assistant's holder arm is a solids collector for the vacuum instruments. The strainer screen must be cleaned and disinfected *at least* once a week.

#### Water Outlet & Flow Control

A water outlet is located on the front panel of the utility housing mounted beneath the worksurface. The outlet accepts a 1/4-inch QD fitting (*DCI part no. 0014*), and has an integral shut-off valve.

Just above the outlet is a control valve to adjust the flow from the water outlet.

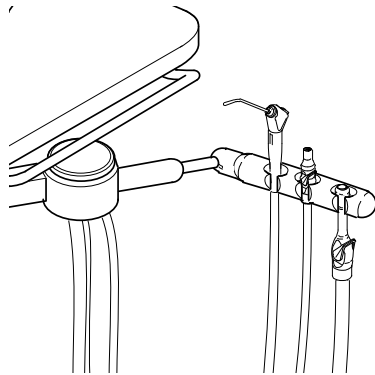


Figure 1: Assistant's Instruments

#### Flex Arm Brake

The **Arm Brake Toggle** is located beneath the front edge of the work surface. This momentary valve is used to release the air brake mechanism when adjusting the height of the work surface. Once it is placed in the desired position release the toggle to lock the delivery system arm against vertical movement.

## ***Section Two Operation***

### ***Routine Adjustments***

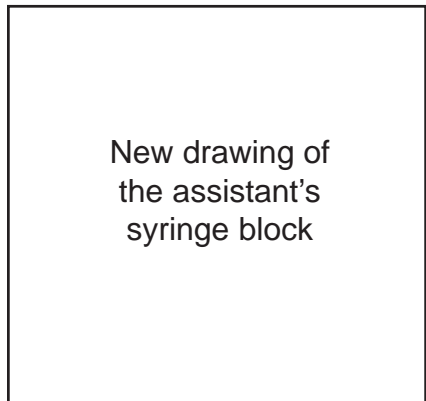
#### **Syringe Flow**

Adjusting screws allow you to control the flow of air and water from the syringe to prevent splashing and to achieve a desirable mist pattern.

The adjusting screws for the optional syringe on the handpiece control. are located inside the control head

For the syringe on the assistant's side, the screws are located inside the utility housing next to the point where the assistant's holder arm is attached (*refer to Figure 2*). Look up inside the housing to see the adjusting screws.

1. Use a 3/32-inch hex key or the ball driver provided with the unit to make the syringe flow adjustment. Identify which adjusting screw is for air and which is for water by the color of the tubing connected to the block. Red is water, gray is air.
2. Adjust the water first, with the syringe button fully depressed. Turn the screw clockwise to decrease flow or counter-clockwise to increase flow.
3. After adjusting the water to the desired flow, press both buttons simultaneously and adjust the air flow to achieve a mist pattern that suits your needs.

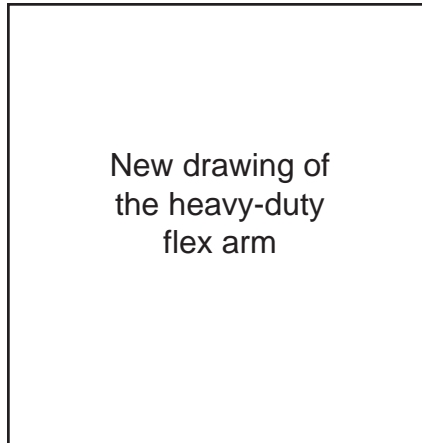


*Figure 2: Syringe Adjusting Screws*

## Flex Arm Balance

The flex arm balance should be adjusted to accommodate the amount of weight that you normally have on the work surface, so that the unit does not drift up or down when the arm brake toggle is released. This is done by adjusting the tension on the counter-balance spring inside the flex arm.

1. Load the work surface with approximately the same weight that it will carry when in use. If the work surface drifts up or down, the arm spring tension should be adjusted.
2. Use a 1/4" T-handle hex key to turn the arm tension adjusting screw (*Figure 3*). Turn clockwise to increase arm lift or counter-clockwise to decrease lift.
3. There are also adjustments that affect the ease of rotation at the pivot points under the work surface and at the top of the flex arm:
  - The adjusting screw for the work surface is located under one of the nylon acorn nuts that serve as bumper stops for the vacuum instrument arm. Use a 1/8" hex key to adjust the screw for the desired friction.
  - The adjusting screw at the top of the flex arm is located under the plastic cover that encloses the pivot hub. Use a 3/32" hex key to make this adjustment.



*Figure 3: Flex Arm Adjustments*

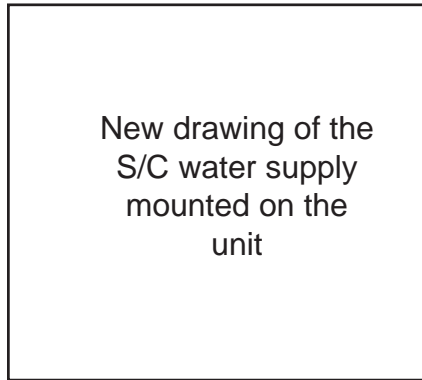
## *Self-Contained Water Supply*

Your *System 6000* unit may be equipped with an optional self-contained water system that allows you to isolate your practice from the municipal water supply. The self-contained water system uses a pressurized bottle to supply water to the unit, giving you full control of the source and quality of the water.

A selector valve on the front panel of the utility housing allows you to select either the city water supply or a bottled water supply of your own choice.

### **Using Bottled Water**

1. Fill the water bottle and install it on its receptacle on the unit. Tighten the bottle firmly to prevent leakage.
2. Turn the unit ON and check for leakage at the bottle. If air or water leakage is observed, turn the unit OFF to release all pressure before tightening the bottle to stop the leaking.
3. Select either city water or bottled water, as desired, using the selector valve on the utility housing



*Figure 4: Self-Contained Water Supply*

### **Changing the Bottle**

1. Turn the unit OFF and allow several seconds for air pressure to be released from the bottle. **Never attempt to unscrew the bottle while it is pressurized!**
2. After releasing pressure, remove the empty bottle and install a full one.
3. Turn the unit ON and check for leakage at the bottle, as previously described.

#### **Warning**

Do not use any bottle other than that provided by DCI. Never use standard soft drink bottles, which may fail under pressure.

Do not attempt to adjust the water pressure, which is pre-set at the factory. Pressurizing the bottle over 40 psi may cause it to rupture.

## ***Section Three Care of the Unit***

### ***Assistant's Unit***

#### **Surface Cleaning**

The external surfaces can be cleaned with a solution of mild detergent and warm water. A variety of surface disinfectants are available for use in dental treatment rooms. Some of these can cause discoloration of painted, plated or anodized surfaces with repeated use. This can be minimized by careful adherence to the disinfectant manufacturer's instructions and by frequent washing with soap and water.

If you use an iodophor (*refer to Table 1 on Page 10*), it is especially important that you follow up with an iodophor neutralizer.

**Important:** Do not use powdered cleansers, scouring pads or abrasive scrubbers on any of the painted, plastic or metal surfaces of this dental unit. To remove dried-on material, use a soft-bristled brush and a solution of mild detergent.

#### ***Assistant's Vacuum Instruments***

##### **After Each Patient**

Draw clear water through each valve, while opening and closing it several times. Leave the valve open for several seconds to allow all of the water to clear the hoses. The HVE and Saliva Ejector tips should always be replaced with sterile ones before each patient.

##### **At the End of Each Day**

We recommend that you draw a vacuum system sanitizing solution through each valve, while opening and closing it. *EcoVac* (DCI part no. 5835 and 5837) is an effective vacuum system cleaner that is non-toxic and environmentally safe.

##### **Cleaning the Solids Collector**

At least once a week, the solids collector screen should be removed for cleaning. Turn off the vacuum pump and swing-out the instrument holder. Remove the solids collector cap and lift out the screen. Disposable screens are available in packages of 100 (DCI part no. 5817). If you find an excessive amount of material in the screen, more frequent cleaning is necessary.



## Cleaning

Clean the external surfaces of the vacuum instruments using a solution of mild detergent and warm water. Thoroughly rinse the syringe with clear water, then dry with a clean, soft, lint-free cloth. Ultrasonic cleaning is not recommended, as the chemicals used may damage the surface finishes of the instrument.

**Important:** Do not use sodium hypochlorite or any chlorine bleach on the vacuum instruments. These products will permanently damage the instruments. Never use powdered cleansers, scouring pads or abrasive scrubbers, any of which can damage the finishes.

## Sterilization

Remove each valve from its tubing for sterilization. A vacuum plug (*DCI part no. 5179*) may be inserted into the quick-disconnect while there is no valve in place. In any situation involving high-risk patients, it is recommended that the instruments be removed for sterilization after every patient. Instructions for disinfecting and sterilizing the vacuum instruments may be found in **Section Four** of this manual.

## As Needed

Disassemble the valve and lubricate the internal parts when operation becomes stiff or sticky (*refer to Figure 5*). Clean the inner surfaces and apply a small amount of O-ring lubricant (*DCI part no. 8030*) to the moving parts and O-rings.

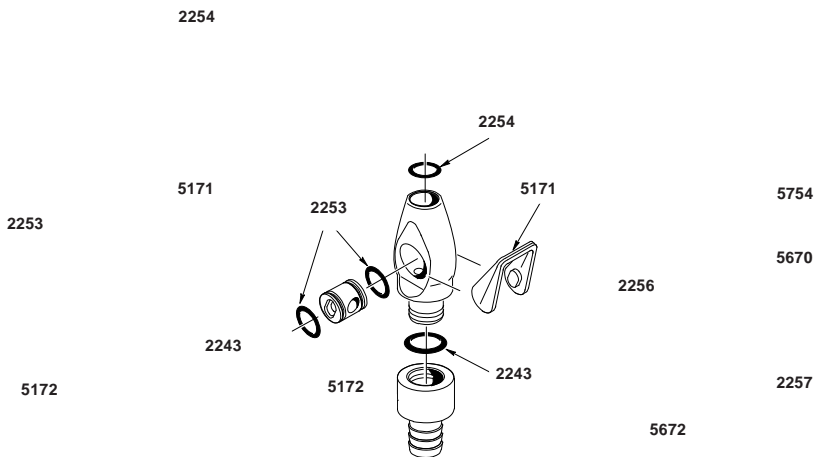


Figure 5: Assistant's Vacuum Instruments

## *Section Four*

### *Disinfecting and Sterilization*

The procedures given here apply to the vacuum instruments and the autoclavable syringe. Additional information on sterilization and disinfection may be obtained from the American Dental Association and the Centers for Disease Control.

#### **Disinfecting**

The use of chemical disinfecting agents is not necessary if the instrument is going to be sterilized. While their use may be easy and quick, it is important to know the effectiveness of any chemical disinfectant against the various agents of infection that may be encountered.

Your dental supply dealer will have current information from all disinfectant manufacturers regarding their product's effectiveness. Always follow the product manufacturer's recommendations for use. The following table lists the disinfectants commonly available through dental supply sources.

<b>Disinfectant</b>	<b>Brand Name</b>	<b>Manufacturer</b>
Phenol/Water Sprays	BIREX se Sporicidin	Biotrol, Int. Ash Div. Dentsply Int'l
Glutaraldehyde Phenol Sprays	Coldspor Procide Spray Sterall Spray	Matrex Research Cottrell Ltd. Colgate Hoyt
Iodophors	Asepti-IDC Biocide Promedyne Iodo-Five Wescodyne	Huntington Labs Biotrol, Int. Cottrell, Ltd. Amsco Medical Prod.
Synergized Chemicals	Cavicide	E & D
Iodophor Neutralizers	Promedyne	Cottrell, Ltd.

*Table 1: Chemical Disinfectants*

#### NOTE

While none of the products listed in Table 1 will adversely affect the performance of your instruments, most chemical disinfectants can be expected to cause some degree of discoloration. This can be minimized by frequent cleaning with soap and water, and in the case of Iodophors, regular use of Iodophor Neutralizers.

### **Sterilization**

There are several methods of sterilization that may be used. It is important to remember, however, that regardless of the method you choose, temperatures should never exceed 275° Fahrenheit (135° Celsius).

Any of the following sterilization methods may be safely used on your vacuum instruments:

- Steam Autoclave
- Ethylene Oxide Gas
- Chemical Vapor Process

Do not allow the instruments to come into contact with the walls of the sterilizer. Avoid placing the instruments in close proximity to the sterilizer heating element.

Dry heat sterilization is not recommended because of the difficulty in maintaining the precise temperature control necessary to prevent damage to the instruments.

**Important:** When using the chemical vapor process, it is essential to rinse out all cleaning agents with clear water. The internal surfaces and passages must be thoroughly purged of residual cleaning agents by flushing with water then isopropyl alcohol. This will prevent the formation of a crystalline residue resulting from reactions between the chemical vapor solutions and cleaning agents.

## One Year Guarantee

DCI has put a lot of time and effort into designing, manufacturing or selecting all the fine products in our catalog. Therefore we are able to fully guarantee every product we sell to be free of manufacturing defects for one year from time of purchase (except the fiber optic tubings which are guaranteed for 6 months). Should any product fail, for whatever reason due to manufacturing defect, DCI will repair or replace that product at no charge to the customer. Beyond the one-year period, we still back everything we sell with service at little or no cost to the customer.



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