



Committed To Innovation

**Owner's Manual for the
System 6000, Model 6545, Duo Cart**

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Control Head

The control head and other components of the system can be cleaned with most commonly available surface disinfectants.

Handpiece Flush

The handpiece flush toggle runs a larger than normal amount of system water through the handpiece tubings, and through the handpieces if they are attached.

To flush the system, hold all of the water-cooled handpieces (or just the tubings) over a basin or sink. Make sure the water will be directed into the receptacle. Pull and hold the flush toggle to the on position. The toggle snaps back to the off position when released. The Center for Disease Control and the American Dental Association can provide recommendations on when to flush your system, and for how long.

Counter top

Will there be a tray? Stainless?

Insert warning about cleaning fluid in proximity with electrical outlet (duh!)

Need to include UL stuff in manual?

Loosen the knob on the support post by turning it counter-clockwise. Raise or lower the system as desired, then re-tighten the knob firmly.

Electrical Outlet

A duplex outlet, located just beneath the control head, provides 110VAC.

Foot Control

Pressure to any part of the foot control disc provides drive air to the active handpiece. Increased pressure provides increased drive air. Stepping on the foot control also turns on air and water coolant.

Water coolant can be shut off by flipping the wet/dry toggle on the foot control to the off position (away from the blue dot).

When not in use, the foot control can be stored in the receptacle on the cross member of the H-frame cart.

Assistant's Instruments

The assistant's instrument station includes a Deluxe autoclavable syringe, an SE valve and an HVE valve. Instructions are provided.

Solids Collector

The solids collector is located behind the assistant's instruments, in the arm. The screen in the solids collector should be cleaned daily and replaced as necessary (DCI catalog number).

Arm and Tool Bar

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 or the foot control disc). Sodium Hypochlorite will also damage these surfaces.

Installation

The duo cart system is shipped fully assembled. The system includes:

- * A System 6000 control head
- * An assistant's instrument package
- * A utility center sub-assembly
- * A wet/dry foot control

You will need the following materials and tools to make utility connections:

- * 1/4" and 1/8" tubing sleeves and sleeve tools.
- * Teflon tape
- * Large crescent wrench

Make connections as follows:

Utility Center Sub-Assembly

Route the 3" diameter umbilical (and the attached floor utility sub-assembly) into the floor box. Thread the manual shut-off valves for air and water onto the air and water supply pipes (these should be sealed, for example with Teflon tape).

Control Head

Make these connections in the floor box:

- * 1\8" yellow from the control head to pilot air inlets. This line is labelled "5."
- * 1\8" clear from the control head to unregulated air (at the master shut-off valve).
- * 1\8" gray from the control head to regulated air (at the air regulator).
- * 1\8" red from the control head to regulated water (at the water regulator).
- * The 1\8" orange line, labelled "A", is unconnected in the control head. It can be used for any application. To use this line for a chip blower, see the section below on foot control connections.

Foot Control (see *Figure 1* on following page)

Route the foot control tubing to the floor box and connect:

- ◆ 1/4" gray ribbed from foot control (air supply) to regulated air (at the air regulator).
- ◆ 1/4" gray unribbed from foot control (drive air) to 1/4" gray from the control head. Both of these lines are labelled "1."
- ◆ 1/8" water coolant signal line from foot control to 1/8" orange from the control head. Both of these lines are labelled "3."
- ◆ 1/8" air coolant line from the foot control to 1/8" white from the control head. Both of these lines are labelled "2."
- ◆ 1/8" chip blower/scaler line from foot control to the unconnected 1/8" orange line from the control head (if applicable). This line is labelled "A." If used for a chip blower, connect to air coolant in the control head.

Electrical

Plug the electrical cord in the umbilical into the outlet in the floor utility. The duplex outlet under the control head is now available for any application.

Turn On and Adjust Air and Water Supply

Open the manual shut-off valves in the floor box. Adjust regulated air to 80 psi, and regulated water to 40 psi. The mini-regulators in the floor box are non-relieving. When adjusting for a lower pressure, make the knob adjustment, then press the syringe button to relieve pressure and give an accurate gauge reading.

control head.

Remove the two screws on the underside of the control head and swing the base down to expose the control block. The drive air pressure gauge is on the outside of the control head, on the left rear side. Install a bur in the handpiece you are going to adjust. Trace the tubing from the handpiece to the control block to determine which adjustment screw will affect the handpiece you have selected. Position the screwdriver in the adjustment screw. Press on the foot control disc until the handpiece is running at maximum speed.

Turn the adjustment screw counter clockwise until the pressure gauge reads a little higher than the manufacturer's recommendation. Then turn the screw clockwise until the gauge indicates the recommended pressure.

Repeat this procedure for each handpiece.

Syringe and Syringe Block

The Duo Cart comes with two pre-installed Deluxe Autoclavable Syringes. The holder for the doctor's syringe is on the far left side of the tool bar. The holder for the assistant's syringe is on the assistant's tool bar. Instruction booklets are provided.

Adjustments to the syringe air and water flow are made on the syringe block. The block is located inside the control head, in the left front corner (see figure 3). Adjustment screws are on top of the block. The screw above the red tubing is for water, the one above the clear tubing is for air. A 3/32" ball driver is provided.

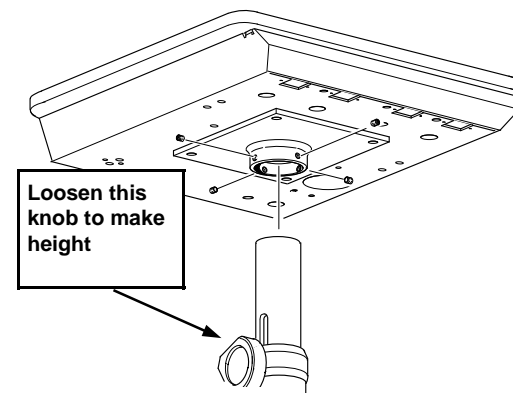


Figure 4

H-Frame Cart

The height of the system can be adjusted by raising or lowering the support post on the H-frame cart.

Warning:
Make sure the weight of the system is supported before making the following adjustment.

knob to provide a strong flow of air. Turn the knob counterclockwise to increase the flow; turn it clockwise to decrease the flow. This adjustment affects all three handpieces.

Water Coolant

Water coolant flow adjustments are made independently for each handpiece.

To adjust water coolant flow, move the wet/dry toggle on the foot control to the wet position (toward the blue dot).

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

While the handpiece is running, turn the corresponding water coolant flow control knob to provide a fine mist of water around the bur (the knobs are arranged across the bottom of the control head in the same order as the handpiece holders/tubings). Very little water coolant is required. Turn the knob counterclockwise to increase the flow, clockwise to decrease the flow.

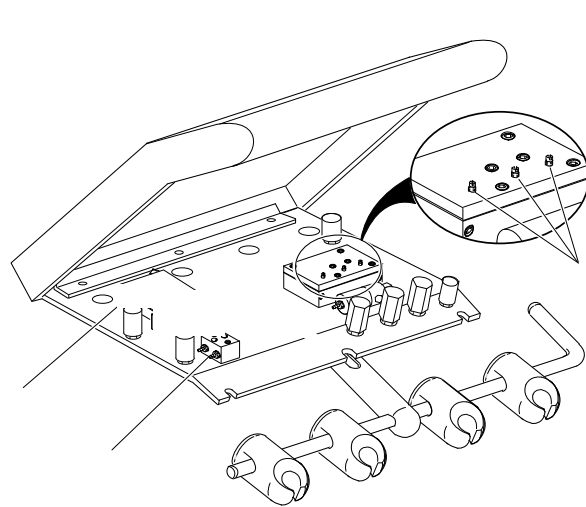


Figure 3

Repeat this procedure for the other two handpieces.

Handpiece Adjustments cont'd.

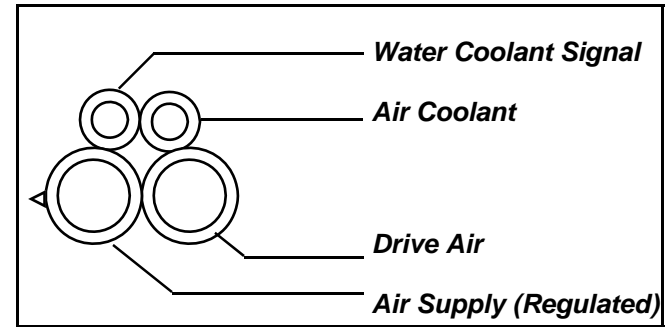
Drive Air Pressure

You will need a small, flat blade screwdriver to make this adjustment.

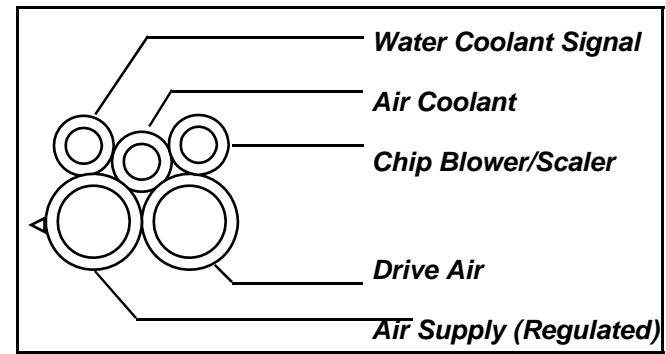
To determine the recommended drive air pressure for your

handpieces, refer to the handpiece manufacturer's literature.

Drive air adjustment screws are located on the control block, inside the



Four-Hole Tubing



Five-Hole Tubing

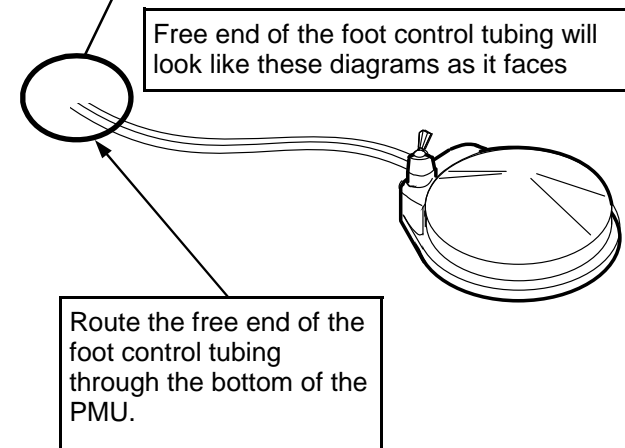


Figure 1

Operation

Asepsis Automatic Control and Doctor's Instruments

Handpiece Holders

The handpiece holders on the control head are automatic. With the master air toggle in the on position, the handpiece will be active as soon as you pick it up. Speed is then controlled by pressing on the foot control.

The positions of the handpiece holders are adjustable. The handpiece holders are attached to the tool bar with a set screw. To reposition a holder, loosen the screw in the bottom of the holder, position as desired, and retighten the screws. You will need a 3/16" hex key.

Control Head

The control head is mounted on a swivel which provides 180 degrees of

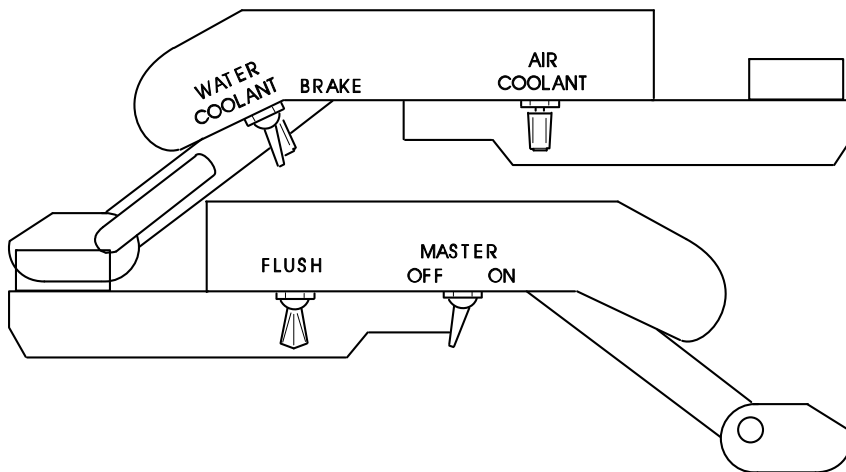


Figure 2

motion. Position as desired; stops are provided on both at the limits of motion to prevent scratching.

The **master on-off toggle** supplies air and water to the entire system. On the underside of the control head, it is located on the left side toward the front.

There is a **water coolant flow control knob** for each of the three handpieces, also located on the underside of the control head, along the right front side. They are arranged in the same order as the handpiece holders\tubings.

The **air coolant flow control knob** is on the right side of the control head, toward the back.

The **drive air pressure controls** are located inside the control head, on the control block. The handpiece pressure gauge is visible from outside the control head, on the left side. Drive air pressure and coolant flow should be adjusted according to the handpiece manufacturer's specifications. See the section below on handpieces.

The **handpiece flush toggle** is located behind the master on-off. See the section on cleaning and Maintenance for instructions.

For **access to the inside of the control unit**, locate two screws on the underside of the unit, toward the front. While supporting the weight of the control head base, use a 1/8" hex key to remove the screws. The bottom of the control unit will now hinge down to expose the control block, syringe block and plumbing.

Handpiece Adjustments

Note

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

Air Coolant

Place the wet\dry foot control toggle in the dry position (away from the blue dot).

Press on the foot control disc until the handpiece is running at half speed. While the handpiece is running, turn the air coolant flow control