

DENTAL HANDPIECE CONTROL UNIT OPERATION INSTRUCTIONS VI MINI CART



**WARNING – THIS EQUIPMENT IS TO BE USED BY
QUALIFIED PERSONNEL ONLY.**

- **THE OPERATOR MUST READ AND UNDERSTAND THE
CONTENTS OF THIS MANUAL BEFORE OPERATING THE
EQUIPMENT.**

DENTAL HANDPIECE CONTROL UNIT OPERATION INSTRUCTIONS

INTRODUCTION

The VI MINI Dental Handpiece Control Unit is designed to deliver air and water supplies, to power dental handpieces and a syringe spray.

The VI MINI has two handpiece tubings each connected to it's own air and supply. On removing from its holder the operator must move the handpiece selector switch to ensure that the air (& water) supplies are routed to the correct outlet. The flow rates are pre set by the operator to match the handpiece and operators needs. The onset of movement, handpiece speed control, and termination of movement are controlled by the operator using the foot control. An increasing amount of pressure increases the speed, and removal of pressure decreases the speed of the handpiece.

Most of the control valves and switches are mounted on the front panel, the handpiece drive air control valves are however mounted on the base of the VI MINI control head.

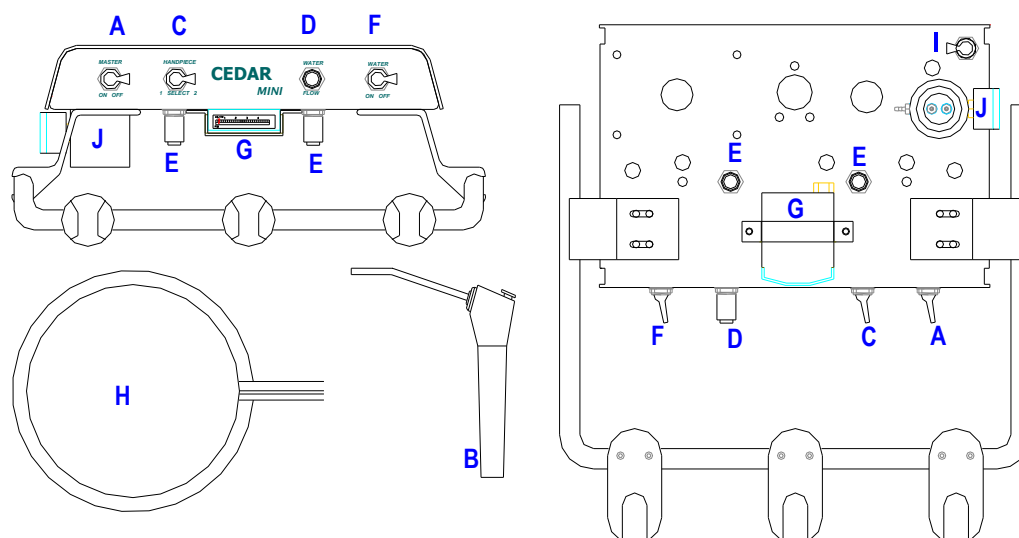
The VI MINI control unit head is mounted on a cart frame, which is mobile. The front castors have brakes, which may be applied to protect against accidental movement. The cart has a height adjustment facility to ensure a comfortable working position.

WARNING – Please read this manual prior to using or making any adjustments to connected handpieces.

WARNING – Never exceed the handpiece manufacturer's recommended pressures.

WARNING – Never run a handpiece without a bur/ drill bit or manufacturer's blank fitted.

MINI DENTAL HANPIECE CONTROL UNIT BOTTLE WATER SYSTEM



DENTAL HANDPIECE CONTROL UNIT OPERATION INSTRUCTIONS

A -- MASTER ON/OFF SWITCH

The VI MINI is unable to operate without activation of this switch. The switch has a positive On/Off action, and the toggle is grey.

Move the toggle to the left and the air and water supply valves will shut off in the service box.

Move the toggle to the right and the air and water supply valves will be opened, allowing air and water to flow into the VI MINI pneumatic circuits.

B -- SYRINGE SPRAY

The syringe is always located in the left holder on the holder bar. The syringe has two button valves, which when pressed release air or water. The left button supplies water and has droplet legend. The right button has a cloud legend and supplies compressed air. The two buttons may be pressed together to provide a fine mist spray. The harder either button is pressed the more air or water will be released.

The syringe is supplied with 10 quick release single-use tips. (DCI International, product code #3160). At the base of the tip is a locking chuck assembly that securely retains the tip.

To remove the tip, press and hold the outer ring at the base of the tip, and gently remove the tip then release the ring.

To replace the tip, press and hold the ring in, insert the tip fully and release the ring. ALWAYS check that the tip is locked in place before using the syringe again.

C – HANDPIECE HOLDERS & HANDPIECE SELECTOR VALVE

There are three handpiece holders, with tubings supplied to the requested configuration.

The syringe spray sits in the far left holder and is manually operated and needs no selection.

The middle and right holders have handpiece supply tubings installed. When a handpiece is picked up the operator must manually move the selector switch to ensure correct routing of the air and water supplies. The middle and right holders have the selectable handpiece tubings seated in them. The middle one has no water coolant spray, the one on the right has a coolant water spray. The one on the left has no water coolant spray, the one on the right should therefore have the high speed turbine handpiece fitted. The operator using the foot control controls the volume of these compressed air supplies delivered to the handpiece.

D -- WATER FLOW CONTROL VALVE

One water flow control valve is provided for the handpiece outlet on the right.

DENTAL HANDPIECE CONTROL UNIT

OPERATION INSTRUCTIONS

Rotate clockwise to reduce or shut off the water flow. Excessive force in this direction will cause damage to the water supply tubing.

Rotate anti-clockwise to increase flow. Excessive rotation in this direction will cause the stem to be removed.

E – DRIVE AIR CONTROL STEM

Two drive air control stems are fitted one for each handpiece outlet.

These are based under the VI MINI control head, inline with the respective handpiece outlet.

This stem when rotated to the right reduces the maximum flow of drive air to the handpiece. **WARNING** tightening the stem into the block excessively will cause damage to the drive air tubing.

When rotated to the left the maximum flow available to the outlet is increased. Excessive rotation in this direction will cause the stem to be removed.

F – WATER COOLANT ON/OFF SWITCH

This is located on the far right of the VI MINI control head. When moved to the left no water will flow through the right handpiece when selected. When moved to the right water coolant flows to the selected handpiece provided the water flow control valve is open. There is no water flow rate control with this switch, the flow is either on or off.

There is no coolant air adjustment on the VI MINI.

G -- HANDPIECE PRESSURE GAUGE

The Handpiece Pressure Gauge displays the pressure of the compressed air supplied from the VI MINI control head to a handpiece which is in use.

Set the drive air supply pressures in accordance with the manufacturer's recommendation for the handpieces to be used.

H -- FOOT CONTROL

The Foot Control is connected directly to the VI MINI control head, and controls one function.

The large disc acts as a flow restrictor valve between the air supply from the service box and the selected handpiece.

The operator depresses the disc to increase airflow and therefore speed of the handpiece. Removal of pressure slows or allows the handpiece to stop.

DENTAL HANDPIECE CONTROL UNIT OPERATION INSTRUCTIONS

I -- BOTTLE WATER SWITCH

The Bottle Water Switch is mounted under the VI MINI control head at the left side behind the Bottle Water Holder. It has a black toggle, and has a positive action.

Pull the Bottle Water Switch outward and the bottle will pressurise.
Press the Bottle Water Switch inwards and the bottle will de-pressurise.

J -- BOTTLE, HOLDER AND GAUGE

The VI MINI control unit head is fitted with a bottle holder with gauge and a thick wall bottle, which acts as a reservoir.

The bottle should be filled with drinking quality water and should be sediment free. Fill to within 5 cms of the neck top of the bottle.

Do not let the bottle become empty as it may cause air locking within the water system.

Do not remove the bottle when pressurised, always use the Bottle Water Switch (I) to cut off the air supply.

Before removing the bottle always check the pressure status at the gauge on the Bottle Holder. The bottle should always be removed slowly to allow any trapped air out through vents in its thread.

Always ensure the bottle you use is the manufacturer's original item and change once a year.

During normal use the gauge on the bottle holder should read 30 PSI. Do not under any circumstances alter the air supply regulator within the MINI control head.

CART FRAME ADJUSTMENT

The painted cart frame upright stem has two setscrews fitted. Support the weight of the VI MINI head and slacken the screws and gently move the control head to the correct height for the operator. Ensure that it is aligned with the cart base and then tighten the setscrews sufficiently to hold the weight.

HANDPIECE SETTINGS

Check the handpiece manufacturers' requirements, and run the handpiece with a bur fitted.

Press the foot control disc to maximum.

DENTAL HANDPIECE CONTROL UNIT OPERATION INSTRUCTIONS

Set the maximum handpiece drive air by adjusting E and monitoring the supply with G.

Set the Water Flow using D.

Please note. Some air motors with external water spray pipes may require the coolant air supply to be completely restricted. If connected to the right handpiece outlet this is already disconnected, if on the right, then this must be isolated.

SERVICE BOX

Inside the service box is the main supply regulator, which for the air supply should be set at 60 PSI. Do not alter this setting.

CLEANING

Do not use alcohol based disinfectants regularly. When used ensure only light application and preferably remove without delay.

Do not use abrasive cleaning substances on any of the surfaces.

Regular use of warm soapy water is the best method of cleaning.

The use of barrier protection is recommended.

WASTE DISPOSAL

The packaging with the MINI is a reusable cardboard carton and styrene foam with protecting film.

The MINI is constructed from Aluminium, Steel, and Plastics.

At the end of its life cycle the module head should be disposed of as clinical waste.

The VI MINI Dental Handpiece Control Unit is made in England by:

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