A-Series Dental Units
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### Operating Conditions

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient Temperature</td>
<td>+10 C to +40 C</td>
</tr>
<tr>
<td>Humidity</td>
<td>30% to 75%</td>
</tr>
<tr>
<td>Atmospheric Pressure Range</td>
<td>700 hPa to 1060 hPa</td>
</tr>
</tbody>
</table>

### Specifications

#### Enlighten B

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Input</td>
<td>Voltage: 120 VAC, Phase: 1, Frequency: 50/60Hz, Power: 15 VA</td>
</tr>
<tr>
<td>Electrical Output</td>
<td>Voltage: 9 VAC, Current: 1000 mA, Power: 9 W</td>
</tr>
</tbody>
</table>

#### Enlighten F

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Input</td>
<td>Voltage: 120 VAC, Phase: 1, Frequency: 50/60Hz, Power: 1A</td>
</tr>
<tr>
<td>Electrical Output</td>
<td>Voltage: 13.7 - 12.2 VAC, Current: 8.6 A, Power: 104.92-117.82 W</td>
</tr>
</tbody>
</table>

#### Cavitron Ultrasonic Scaler

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical Input</td>
<td>Voltage: 115 VAC, Phase: 1, Frequency: 50/60Hz, Power: 1.25 A</td>
</tr>
<tr>
<td>Electrical Output</td>
<td>Voltage: 24 VAC, Current: 1.25 A, Power: 30 W</td>
</tr>
</tbody>
</table>

#### Pneumatic Specifications

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Pressure</td>
<td>Patient Bottle: 35 psi (241.4 Kpa), City Water: 35 psi (241.4 Kpa)</td>
</tr>
<tr>
<td>Air Pressure</td>
<td>Regulated: 80 psi (551.8 Kpa)</td>
</tr>
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</table>

### Storage & Shipping

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient Temperature</td>
<td>-40 C to +70 C</td>
</tr>
<tr>
<td>Humidity</td>
<td>10 to 95 RH (non-condensing)</td>
</tr>
<tr>
<td>Atmospheric Pressure Range</td>
<td>7 to 15 psi (50 to 106 Kpa)</td>
</tr>
</tbody>
</table>

### Classifications

- Classification of Equipment: Class I
- Degree of Protection against harmful ingress of water: Ordinary
- Mode of Operation: Intermittent

### Technical Support

For Technical support and repair assistance, contact your local Proma dealer.
Replacement Parts

To order supplies or replacements parts for the A-Series dental unit, contact your local Proma dealer.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>50001052A</td>
<td>Uni-Handpiece Holder Assembly, Right</td>
</tr>
<tr>
<td>500010621</td>
<td>Uni-Handpiece Holder Assembly, Left</td>
</tr>
<tr>
<td>8010410</td>
<td>Cooling Air Value Assembly</td>
</tr>
<tr>
<td>8020110</td>
<td>Control Module Assembly, Selector Head</td>
</tr>
<tr>
<td>8020140B</td>
<td>Water Protect Valve Assembly</td>
</tr>
<tr>
<td>41150004</td>
<td>Amalgam Trap Assembly</td>
</tr>
<tr>
<td>4115006</td>
<td>Amalgam Trap Lid</td>
</tr>
<tr>
<td>90989</td>
<td>O-Ring, Lid Amalgam Trap</td>
</tr>
<tr>
<td>93013</td>
<td>HVE Valve Assembly</td>
</tr>
<tr>
<td>93014</td>
<td>Saliva Ejector Assembly</td>
</tr>
<tr>
<td>93015</td>
<td>Lever, HVE</td>
</tr>
<tr>
<td>93018</td>
<td>Lever, Saliva Ejector</td>
</tr>
<tr>
<td>5013170</td>
<td>Socket Pressure Assembly</td>
</tr>
<tr>
<td>46188006</td>
<td>56 inch Handpiece Hose</td>
</tr>
<tr>
<td>92751</td>
<td>Syringe Assembly</td>
</tr>
<tr>
<td>92982</td>
<td>Gasket, Socket Pressure</td>
</tr>
<tr>
<td>9128600K</td>
<td>One Litter Water Bottle Kit</td>
</tr>
<tr>
<td>9132700K</td>
<td>Two Litter Water Bottle Kit</td>
</tr>
<tr>
<td>20150022</td>
<td>Channel Tilt, Telescoping Arm</td>
</tr>
<tr>
<td>8257002</td>
<td>Absorbing Oil Collector Pad</td>
</tr>
<tr>
<td>8030107</td>
<td>½-20 Finishing Nut</td>
</tr>
<tr>
<td>91032</td>
<td>Stainless Steel Tray</td>
</tr>
<tr>
<td>92451</td>
<td>Syringe Repair Kit</td>
</tr>
<tr>
<td>92814</td>
<td>Foot Control Repair Kit</td>
</tr>
<tr>
<td>91267</td>
<td>Diaphragm Pilot Valve</td>
</tr>
<tr>
<td>91462</td>
<td>Air Regulator Repair Kit</td>
</tr>
<tr>
<td>91463</td>
<td>Water Regulator Repair Kit</td>
</tr>
<tr>
<td>91301</td>
<td>Pilot Valve Repair Kit</td>
</tr>
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</table>

Care & Disinfection

Use Disposable Plastic Films and Foils
Proma encourages the use of disposable films and foils on handles and surfaces commonly touched with gloved hands. This can reduce the need for chemical surface disinfection and extend the life span and appearance of these surfaces.

Do Not Soak Plastic Parts
The useful life of many plastics may be greatly shortened by soaking in any disinfectant solution for unnecessarily long periods.

Cleaning Your Proma Unit
Clean and disinfect the unit at beginning and end of workday and week.

Proma only approves the use of a mild soap and water solution, applied with a soft cloth.

Proma recommends Birex®SE manufactured by Biotrol International

The outside surfaces may be cleaned with a moist (not dripping) soft towel soaked in any mild soap and water solution and squeezed dry. Wipe and dry with a soft towel. Do not use abrasive cleaners or rough paper towel which may scratch the molded surfaces. After cleaning, wipe all surfaces with a gauze sponge moistened (not dripping) in a properly prepared diluted disinfectant.

Unitized Handpiece Holders
Proma also recommends the use of “Soft Scrub® with Bleach” to clean the handpiece cavity of the holder. Apply cleaner to a soft cloth and rub the area to be cleaned.

Warranty

Proma warrants its products against defects in materials and/or workmanship for five years from the date of shipment from the factory. No other warranties are expressed or implied. No employee, representative or dealer is authorized to change this warranty in any way, or grant any other warranty dealing with this product. Proma’s sole obligation under this warranty is limited to repair, replace, or modify the defective part or product if, in its judgment, this is advisable. Labor and other costs for removal and reinstallation are not included in this warranty. The buyer shall have no other remedy. (All special, incidental, and consequential damages are excluded.) Written notice of breach of warranty must be given to Proma within the warranty period. The warranty does not cover damages resulting from improper installation or maintenance, accident or misuse. Warranty is void if product is not installed by an authorized Proma dealer. NO OTHER WARRANTIES AS TO MERCHANTABILITY, FITNESS FOR USE OR OTHERWISE ARE MADE. This warranty gives specific legal right, and there may also be other rights which vary from state to state. (Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply.) Proma will provide service advice and instructions as required for repair or replacement of this product. Call 1.310.327.0035 for service.
Control Locations, Selector Head with Pinch Control Block

1. **Master Air & Water ON/Off Toggle**
   Opens and closes the air and water supply for the complete system. Exhausts air when turned off
   **Important:** Shut off system by setting toggle to the off position each night before removing Patient Water bottle, or when not in use

2. **Handpiece Coolant Water On/Off Toggle**
   On/Off for handpiece water. Turn off for low-speeds that normally do not require water coolant.

3. **Handpiece Water Flush System**
   Flushes handpieces with water. Remove handpiece from selector and hold over basin or cuspidor bowl. Open fine mist controls fully. Pull forward for two minutes before first patient. Ten seconds between patients. Adjust fine mist controls.

4. **Arm Lock/Release Momentary Valve**
   Releases vertical arm travel lock. Push-in button to unlock arm and release button to lock. Exhausts air when released

5. **Handpiece Pressure Gauge**
   Avoid exceeding manufacturer’s recommened air pressure – 30 to 35 psi for most high-speed handpieces.

6. **Drive Air Pressure Control Knob (Yellow)**
   Adjusts drive air pressure to the handpiece. Clockwise decreases pressure, Counter-clockwise increases pressure
   **Caution:** Excess pressure damages handpiece bearings

7. **Coolant Water Fine Mist Control Knob (Blue)**
   Control water coolant to handpieces. Counter-clockwise increases pressure and clockwise decreases pressure.

8. **Coarse Water Control**
   Stops water dripping after foot control is released. Adjust to fine mist with fine mist controls full opened

9. **Oil Collection Jar**
   Pad absorbs handpiece oil. Unscrew and empty jar and replace pad weekly. Order kit 912-81-00 (24 pads)

10. **Coolant Air Adjustment Control Knob**
    Adjusts coolant airflow to all handpieces. Counter-clockwise increases pressure and Clockwise decreases pressure.
Control Locations, Selector Head with Traditional Control Block

1. **Master Air & Water ON/Off Toggle**
   - Opens and closes the air and water supply for the complete system. Exhausts air when turned off.
   - **Important:** Shut off system by setting toggle to the off position each night before removing Patient Water bottle, or when not in use.

2. **Handpiece Coolant Water On/Off Toggle**
   - On/Off for handpiece water. Turn off for low-speeds that normally do not require water coolant.

3. **Handpiece Water Flush System**
   - Flushes handpieces with water. Remove handpiece from selector and hold over basin or cuspidor bowl. Open fine mist controls fully. Pull forward for two minutes before first patient. Ten seconds between patients. Adjust fine mist controls.

4. **Arm Lock/Release Momentary Valve**
   - Releases vertical arm travel lock. Push-in button to unlock arm and release button to lock. Exhausts air when released.

5. **Handpiece Pressure Gauge**
   - Avoid exceeding manufacturer’s recommened air pressure – 30 to 35 psi for most high-speed handpieces.

6. **Drive Air Pressure Control Knob**
   - Adjusts drive air pressure to the handpiece. Clockwise decreases pressure, Counter-clockwise increases pressure.
   - **Caution:** Excess pressure damages handpiece bearings.

7. **Coolant Water Fine Mist Control Knob (Blue)**
   - Control water coolant to handpieces. Counter-clockwise increases pressure and clockwise decreases pressure.

8. **Coarse Water Control**
   - Stops water dripping after foot control is released. Adjust to fine mist with fine mist controls full opened.

9. **Oil Collection Jar**
   - Pad absorbs handpiece oil. Unscrew and empty jar and replace pad weekly. Order kit 912-81-00 (24 pads)

10. **Coolant Air Adjustment Control Knob**
    - Adjusts coolant airflow to all handpieces. Counter-clockwise increases pressure and Clockwise decreases pressure.
Control Locations, Selector Head with Pinch Valve Control

1. **Master Air & Water ON/Off Toggle**
   - Opens and closes the air and water supply for the complete system. Exhausts air when turned off
   - **Important:** Shut off system by setting toggle to the off position each night before removing Patient Water bottle, or when not in use

2. **Handpiece Coolant Water On/Off Toggle**
   - On/Off for handpiece water. Turn off for low-speeds that normally do not require water coolant.

3. **Handpiece Water Flush System**
   - Flushes handpieces with water. Remove handpiece from selector and hold over basin or cuspidor bowl. Open fine mist controls fully. Pull forward for two minutes before first patient. Ten seconds between patients. Adjust fine mist controls.

4. **Handpiece Pressure Gauge**
   - Avoid exceeding manufacturer’s recommended air pressure – 30 to 35 psi for most high-speed handpieces.

5. **Drive Air Pressure Control Knob (Yellow)**
   - Adjusts drive air pressure to the handpiece. Counter-clockwise decreases pressure, Clockwise increases pressure
   - **Caution:** Excess pressure damages handpiece bearings

6. **Coolant Water Fine Mist Control Knob (Blue)**
   - Control water coolant to handpieces. Counter-clockwise increases pressure and clockwise decreases pressure.

7. **Coarse Water Control**
   - Stops water dripping after foot control is released. Adjust to fine mist with fine mist controls full opened

8. **Solids Collector**
   - Catches debris that would otherwise clog sub-floor vacuum pumps and plumbing. Remove and replaceable screen (Proma part #91475). Treat as biocontaminated waste (see caution on page 00). Always flush vacuum system before changing screen.

9. **Oil Collection Jar**
   - Pad absorbs handpiece oil. Unscrew and empty jar and replace pad weekly. Order kit 912-81-00 (24 pads)

10. **Coolant Air Adjustment Control Knob**
    - Adjusts coolant airflow to all handpieces. Counter-clockwise increases pressure and Clockwise decreases pressure.
**Flex Arm Counterbalanced Adjustment**

The flex arm counterbalanced spring tension is factory adjusted to carry the weight of the unit plus an additional 1½ pounds. If the user’s application requires the flex arm to carry an additional load, the counterbalanced spring can be adjusted to carry up to, but not exceeding 10 additional pounds.

**Warning**

Do not over tighten the flex arm counterbalanced spring. The flex arm counterbalance mechanism is designed to compensate for a maximum of 10 pounds of additional load. Adjusting the spring tension to carry more than an additional 10 pounds may cause permanent damage to the flex arm.

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**Adjusting the Flex Arm Counterbalance Spring Tension**

Remove the plastic bottom cover by pulling down on one end. Insert a flathead screwdriver thru the ¼” slot in the underside of the flex arm support and rotate the gear nut that compresses the counterbalance spring. See figure left.

**Dual Cabinet / Wall Mount Unit**

One full stroke of screwdriver will increase/decrease the flex arm counterbalance by 1/10th (.10) pounds.

**OTP, Doctor and Hygiene Cabinet Units**

One full stroke of screwdriver will increase/decrease the flex arm counterbalance by 1/16” (.06) pounds.
**Cuspidor Controls**

**A Master Air & Water On/Off Toggle**
Opens and closes the air and water supply for the complete system. Exhausts air when turned off.

*Important*: Shut off system by setting toggle to the off position each night, before removing Patient Water bottle, or when not in use.

**B Bowl Flush Button**
Press down buttons to activate bowl flush. Delay timer terminates flow automatically.

**C Cup Filler Button**
Press down buttons momentarily to fill the rinsing cup.

**D Bowl Flush Time Delay Adjustment Knob**
Time of flush is regulated by adjustment knob located under cuspidor on the right side of unit. Turn counterclockwise to reduce flush time; fully clockwise for continuous flow.

**E Removable Debris Screen**
Use rubber gloves when cleaning. Removable screen allows for easy regular cleaning. Wipe amalgam silt from debris catch under screen with a paper towel and discard.

**F Vacuum Drain (Option)**
Clean vacuum jar under floor utility cover weekly. Flush vacuum drain by pouring one (1) quart of water and Biotrol’s Vacusol Plus® (or equal) detergent into cuspidor. Next, operate toggle valve for 30 seconds then turn toggle off. Remove jar and clean jar and screen.* Lubricate seal and threads with Proma part #92004 or petroleum jelly and reassemble.

*Caution: Do not over-tighten.* (Note: use gloves, face and clothing protection when handling biohazardous materials.)

*CAUTION*
Debris from solids jars and vacuum screens may be classified as biocontaminated hazardous waste and require special handling and disposal. Contact your local community government for local regulations. Debris from amalgam filling placement and removal may contain mercury and heavy metals.
Assistant Vacuum Controls

ProValve Plus HVE
One autoclavable ProValve Plus is provided on most Proma vacuum packages. Variable control of the wet central vacuum system is obtained by adjusting the lever on the valve. See details below for cleaning and sterilization procedure.

Saliva Ejector Valve
(Low volume vacuum)
Autoclavable. A debris screen is provided under the tip. For trouble-free service, clean thoroughly by flushing daily with water. Use a non-foaming flushing detergent weekly. An occasional spray of a handpiece lubricant will keep the knobs free of excess debris. Clean or replace Saliva Ejector screen after each patient with Proma part # 91057 or equal. Handle screen as biocontaminated waste*

Sterilization of ProValve Plus and Saliva Ejector Valves
- Disconnect valve from swivel
- Spread lever tips outward slightly and remove from spool. (Note: By reversing spool end, you will reverse level on and off position).
- Push spool outward
- Clean thoroughly all O-rings, valve body and spool parts inside and out with diluted germicidal detergent. Rinse thoroughly and dry.
- Lubricate O-rings and all moving parts using Proma silicone lubricant (part # 92004).
- Reassemble valve and sterilize.

Dual Cart & 12 O’Clock Cabinet Mount Unit

Work Surface Height Adjustment
Always remove heavy loads from work surface. Locate Height Adjust knob and with one hand supporting the work surface, loosen the knob. Raise or lower work surface to desired height. Securely tighten knob.

Valve Body
Spool
Lever
Swivel

1 Valve Body
2 Spool
3 Lever
4 Swivel
Dental Patient Water System

Dental Patient Water Systems: The Choices

Users can control water quality and contaminants by properly using Proma’s Dental Patient Water System. This system consists of an isolated bottle and all polymer pathways through the selector and allows for regular treatment with bleach solution to address effects of contamination.

The bottle holds sufficient water for a normal day’s use. Heavy users may require mid-day refill. A bottle simply unscrews for refilling. Use only Proma bottles on Proma water system.

Use only distilled or demineralized water and treat empty bottles with a rinse of bleach solution once weekly.

Water System Maintenance

Control asepsis by filling from a quality water source and using proper water handling and filling techniques.

Follow instructions in Quick Notes, document 9050261, to reduce the risk of contamination in your water lines.

Caution

Studies show most improperly maintained dental unit water lines have microbial contamination. For proper use and maintenance, please read and follow instructions. Failure to perform this maintenance can promote contamination.
Solids Collector

Catches debris that would otherwise clog sub floor vacuum pumps and plumbing. Removable and replaceable screen (Proma part # 91475). Treat as biocontaminated waste. * Always flush vacuum system before cleaning screen.

Cleaning of Vacuum System

- Open all valves to drain excess water and relieve pressure
- Leave valves open and flush hoses with warm water ad germicidal detergent (Vacusol or equal).
- Wearing rubber gloves, open Solids Collector and remove Screen (Note: wear gloves, face shield and protective clothing when handling biohazardous materials.)
- Empty debris into paper towel and properly dispose.*
- Thoroughly wash and wipe collector lid and screen, especially sealing edges.
- Apply silicone paste (Proma part # 92004) or petroleum jelly to lid and sealing edges.
- Reinstall screen, replace lid and close valves.

* Caution

Debris from solids jar and vacuum screens may be classified as biocontaminated hazardous waste and require special handling and disposal. Contact your local community government for regulations. Debris from amalgam filling placement and removal may contain mercury and heavy metals.