

# CareMaster®

Automatic Handpiece Cleaning & Lubrication System

## Instructions For Use



**Beyes®**

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Thank you for purchasing the CareMaster. This product is designed to clean and lubricate the handpiece easily and thoroughly. Please read this Instructions For Use carefully before use and file for future reference.



### Safety Information

- Read these safety precautions before use and operate the product properly.
- The indicators are to allow you to use the product safely and prevent danger and harm to you and others. These are classified by degree of danger, damage and seriousness. All indicators concern safety, and be sure to follow them



**WARNING!**  
(RISK OF INJURY)



**ATTENTION!**  
(TO PREVENT DAMAGE)



General explanations,  
without risk to  
persons or objects



Thermal washer  
disinfectable



Sterilizable  
up to the stated  
temperature



### DANGER

- Do not install, use or fill this product with Maintenance Oil in a room with a risk of explosion or near open flames.
- Do not install or use the product in direct sunlight or where the temperature exceeds 40 °C (104 °F).
- Do not use this product for purposes other than the maintenance (cleaning and lubrication) of instruments described in this Operating Manual.
- Provide adequate ventilation. If odours cause your concern, provide additional ventilation immediately.



### WARNING

- Do not handle the Power Cord with wet hands as this may result in an electric shock.
- Be careful not to spill water onto the Control Unit as this may result in a fire or an electric shock due to a short-circuit.
- Do not disassemble or alter the Control Unit. For service or repair contact your authorised dealer.
- If the Control Unit smokes or smells of burning, turn off the power immediately and disconnect the power plug. Contact your dealer.
- Do not drop the Control Unit. Place the Control Unit on a flat surface.
- Use a Fuse of specified rating. (120V: T800mAL250V, 220V/240V: T400mAL250V)



### CAUTION

- Always autoclave handpieces after cleaning and lubricating with this product.
- The system functions normally in an environment where the temperature is at 10- 40°C ( 50-104°F ), humidity at 25-70% RH, atmospheric pressure at 500-1060hPa and no moisture condensation in the Control Unit. Use at outside these limits may cause malfunction.
- Store the system in a place where the temperature is at -10-50°C ( 14-122°F ), humidity at 10-85% RH, atmospheric pressure at 500-1060 hPa and the Unit is not subject to air with dust, sulfur or salinity.
- When installing this product, provide space of approximately 10 cm around the Control Unit.
- Place a collector such as a tray under the Control Unit.
- The air supply to this device (Air Compressor etc.) and Air Filter need to be clean and free from moisture. Drain the Air Compressor and Air Filter at least once a week. Moisture from the tank could mix with the Maintenance Oil and defeat the purpose of this device.
- Remove the Air Tube and the Power Cord if the Control Unit is not to be used for a long time.

- When storing the Maintenance Oil keep away from strong oxidizing agents, combustible materials and strong acid chemicals.
- The user shall be responsible for operation and maintenance.
- Only purchase original Beyes replacement parts such as Maintenance Oil (Refer to accessories list). Any parts other than original Beyes accessories could cause damage and malfunction.

## 1. Features

- Choice of 2 connectors according to individual needs.

**HPL2010** 2 Air Turbine, 1 E-TYPE Attachment

**HPL2011** 1 Air Turbine, 2 E-TYPE Attachment

- Helps to perform uniform handpiece maintenance and lubrication.
- Three handpieces can be cleaned and lubricated simultaneously whilst keeping your hands clean.
- CareMaster's E-type Connector effectively and efficiently cleans and lubricates Contra Angle Handpieces and Straight Handpieces.
- Pressing the AIR Button can purge excess oil from the handpiece/turbine after lubrication and cleaning cycle.
- Select the lubrication and cleaning cycle time from Short Mode, Long Mode and Extra Long Mode according to the handpiece.
- The mist filters attached behind the Door keeps mist leakage to a minimum.

## 2. Parts Names



Fig.1

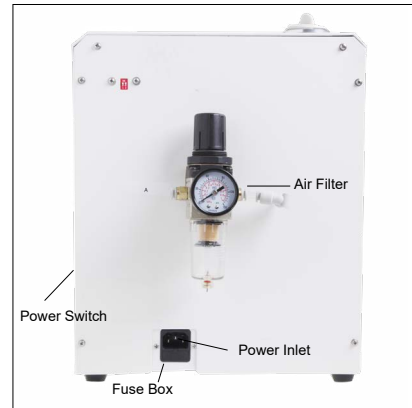


Fig.2

## • Standard Accessories

The following accessories are supplied with this product. If any of these accessories are not missing, contact your dealer.

Product Names	Product Names	Nombre	Quantity
Power Cord	1	Oil Absorbent Sheet Set	1 juego con 15 piezas
Oil Supply Funnel with Filter	1	O-ring Set	1 juego
Mist Filter Set	1 set (12 pcs.)	Poly Male insert Q.D	1
Air Tube	1	Poly x Compression Tubing	1

## 3. Installation and Assembly

### (1) Fuse Rating

Refer to the table below and check that the power supply voltage fits the Fuse rating. To check the Fuse rating, remove the Fuse box (Refer to 6 Changing Fuses)

Voltage	Rating
120V	3 A 250V
220V/240V	1.5 A 250V

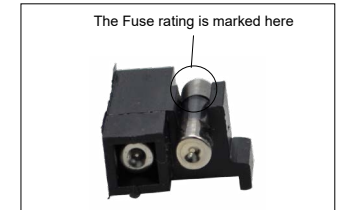


Fig.3

### (2) Connecting Air Tube

#### Step 1

Securely insert "A" side into the back of the unit (fig.4)

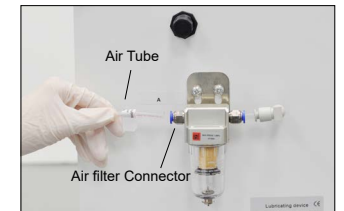


Fig.4

#### Step 2

Connect CareMaster to the air source. There are many different configurations for the air source. We provide two most common connectors.

Option A: if you have Poly Q.D Female Panel Mount in your office (Fig 5A)

1. Connect " B" side of the air tube to the Poly Male insert Q.D (included in the package)
2. Press down the release lever on the Poly Male insert Q.D
3. Insert Poly Male insert Q.D into the Poly Q.D Female Panel Mount



Option A Fig.5A

Option B: if you have Quarter Turn Stop Valves in your office (Fig 5B)

1. Connect " B" side of the air tube to the Poly X Compression Tubing(not included in the package)
2. Insert the Poly X Compression Tubing into the Quarter Turn Stop Valves
3. Tighten the compression nut



Option B Fig. 5B

### ! CAUTION

- Only use this product with the air pressure when set between 0.35-0.60 MPa (3.5-6.0 kgf/cm<sup>2</sup>) (50-60 psi). 2 Do not set the air pressure below 0.35 MPa (3.5kgf/cm<sup>2</sup>) (50 psi).
- Do not twist or bend the Air Tube.
- If you have difficulty connecting the Air Tube, contact your dealer.
- The air supply (Air Compressor) and Air Filter need to be clean and free from moisture. Drain the Air Compressor and Air Filter at least once a week as required. Moisture from the tank could mix with the Maintenance Oil and defeat the purpose of this device.

### (3) Filling Maintenance Oil

Check that the filter of the funnel is clean. Remove the Oil Fill Cap and fill with the funnel. (Fig. 6) Fill it to the "FULL" level, while checking the Oil Level Gauge. After filling, screw the Oil Fill Cap back on tightly.

### ! DANGER

Do not fill Maintenance Oil in a room where there is a risk of explosion or near open flames.



Fig. 6

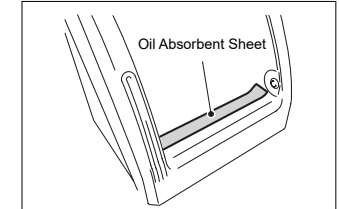
### ! CAUTION

- Before pouring oil make sure that the filter of the funnel is free from debris to avoid clogging the system.
- Make sure that the Oil Drain Bolt on the underside of the Unit is tightened securely. A loose bolt may leak Maintenance Oil.
- Do not fill Maintenance Oil beyond the 'FULL' level in order to avoid accidental oil leaking. Pour slowly.
- Always securely tighten the Oil Fill Cap of the Unit.
- Do not remove the Oil Fill Cap during operation. Only remove it after the Unit has completely stopped.
- Wait for 5 minutes to remove the Oil Fill Cap after an abnormal stop (i.e. opening the Door).



### (4) Oil Absorbent Sheet

Place an Oil Absorbent Sheet at the bottom of the lubricating and cleaning chamber of the Control Unit as shown in Fig.7. The Oil Absorbent Sheet absorbs the excess Maintenance Oil.



\* Shown with Door removed. Fig.7

### (5) Connecting Power Cord

Insert the Power Cord into the Power Inlet at the back of the Control Unit. (Fig. 8)equipo (Fig. 8)

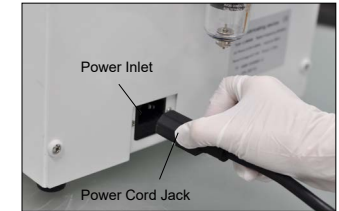


Fig.8

## 4. Operation Procedures

### (1) Attaching Handpiece

Attaching air turbine handpiece (according to ISO 9168)

- 1) Remove the bur from the handpiece.
- 2) Open the Door of the Control Unit, attach the handpiece to the connector and tighten the Nut securely. (Fig. 9)
- 3) Close the Door securely.

### ! CAUTION

Be sure to remove the bur from the handpiece before connecting it to each connector.



\*HPL2010 Fig.9

- Attaching E-type handpiece (according to ISO 3964 type)

### Straight Handpiece

- 1) Insert the supplied Test Bur and lock chuck.(Fig. 10)
- 2) Open the Door of the Control Unit and attach the handpiece to the E-Type Connector until it locks. (Fig. 11)
- 3) Close the Door securely.

### Contra Angle Handpiece

- 1) Remove the bur from the Contra Angle Handpiece.
- 2) Open the Door of the Control Unit and attach the Contra Angle Handpiece to the E-Type Connector until it locks. (Fig. 11)
- 3) Point the bur insertion hole toward the Door and close the Door securely. (Fig. 12)

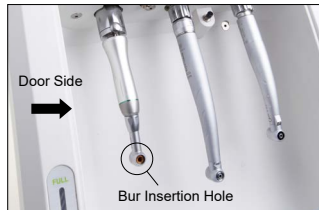


Fig.10



\* HPL2010

Fig.11



\* HPL2010

Fig.12

### CAUTION

- Be sure to remove the bur from the Contra Angle Handpiece before attaching it to the Connector. For the Straight handpiece make sure to insert the supplied Test Bur and lock the chuck before connecting to the Connector.
- For the Contra Angle Handpiece point the Bur Insertion Hole towards the Door and close the Door. Not pointing the Bur Insertion Hole towards the Door may prevent the Door from closing.

### (2) Cleaning and Lubricating

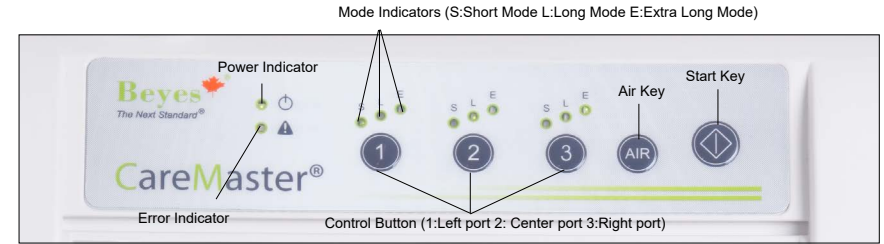


Fig.13

- 1) Connect the Power Cord to the power supply. Turn on the Power Switch and the Power Indicator will light up.
- 2) Press the Control Button for number of handpieces. First push will select S (Short Mode), Second push L(Long mode)Third push E(Extra Long mode). Those modes are indicated by the S, L and E lights.
- 3) When two or more handpieces are mounted, select the correct mode for each handpiece.
- 4) Press the Start Key and the CareMaster automatically cleans and lubricates the connected handpieces. The mode indicator flashes during the cleaning and lubrication cycle.
- 5) When the cleaning and lubrication cycle is completed the mode indicator turns on and the buzzer sounds to indicate the completion of the cycle.
- 6) Pressing the Air Key to blow out air only through the connector with the mode indicator lighting to purge excess oil. Do this as and when required.

Mode	Handpiece	Lubrication and cleaning time	Air time
Short Mode	Air Turbine Handpiece	Approx. 35 sec.	Approx. 60 sec
Long Mode	Contra Angle Handpiece	Approx. 45 sec.	Approx. 80 sec
Extra Long Mode	<ul style="list-style-type: none"> <li>All Handpieces (Make a selection when adequate lubrication and cleaning cannot be performed in the Short or Long mode.)</li> <li>Speed Increasing Contra Angle Handpiece</li> <li>Speed Reducing Contra Angle Handpiece</li> <li>Other Makes of Air Turbines, Contra Angle Handpieces, and Straight Handpieces.</li> </ul>	Approx. 50 sec.	Approx. 90 sec.

\* Above show the total clean-lubricate-purge time.

\* Lubrication and cleaning in the Extra Long mode may cause oil to remain in the handpiece.

\* Only use original Beyes accessories and consumables. Please contact us.

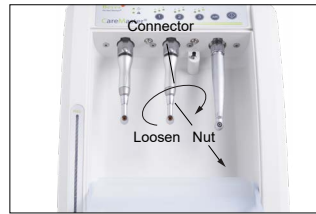
### CAUTION

- Connect to the correct power supply : AC120V or AC230V
- Use only 3-wire Power Cords that have 3-prong grounding plugs and 3-hole grounded receptacles that accepts the Control Unit's plug.
- Select an appropriate mode according to the type of handpiece. Select an inappropriate mode may release oil mist (misty solution) outside the Control Unit.
- When the mode indicator is off, the CareMaster is not functioning.
- When the error indicator light is on, make sure the Door is closed securely.
- First time usage or if you have not used the CareMaster for a long time, repeat cleaning and lubrication approx. four or five times before use.
- Do not open the Oil Fill Cap or Door during operation.

### (3) Removing Handpiece

- Removing Air Turbine (according to ISO 9168)

Open the Door after the mode indicator lights again and cleaning and lubrication cycle has completely finished. Loosen the Nut and pull out the handpiece straight from the Connector. (Fig. 14)

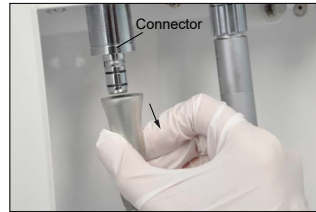


\* HPL2010

Fig.14

- Removing E-type handpiece (according to ISO 3964 type)

Open the Door after the mode indicator lights again and cleaning and lubrication cycle has completely finished. Pull out the handpiece in axial direction. (Fig. 15)



\* HPL2010

Fig.15



#### CAUTION

Wipe off the Maintenance Oil collected at the bottom of the cleaning chamber and the Door. The collected oil could leak from the bottom of the Door. Dispose of wiped cloth as medical waste according to the laws and regulations in your country.

## 5. Door

The Door could be removed when cleaning or replacing the Door gasket.



#### CAUTION

Remove or mount the Door on a flat and stable surface while holding the Control Unit.

### (1) How to remove the Door

- 1) Push the Detachment Pin.
- 2) Remove the Door from the chamber. (Fig. 16)

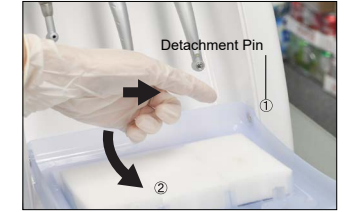


Fig.16

### (2) How to mount the Door

- 2) Push the Detachment Pin.
- 1) Align the left side of the door.
- 3) Push the door. (Fig. 17)

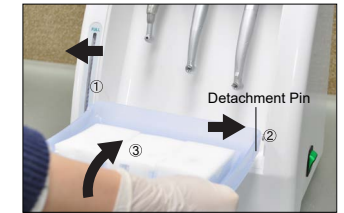


Fig.17

## 6. Maintenance

### (1) Replacing Mist Filter

After opening the Door and removing used Mist Filters, replace with new Mist Filters as shown in Fig. 18. Order No. HPLP011



#### CAUTION

- Replace Mist Filters after approx. every 50 cycles.
- Dispose of used Mist Filters as medical waste according to the laws and regulations in your country.

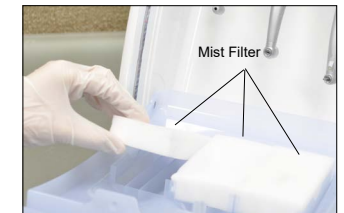


Fig.18



#### NOTICE

Repeat the lubrication and cleaning cycle 4 or 5 times before use to secure stable oil absorption of Mist Filters. Alternatively, apply Maintenance Oil (Option) etc., directly to Mist Filters before use.

## (2) Replacing Oil Absorbent Sheet

After opening the Door and removing used Oil Absorbent Sheet, place new Oil Absorbent Sheet as shown in Fig. 19.

\* Oil Absorbent Sheet Set (Pack of 15) :

Order No. HPLP015

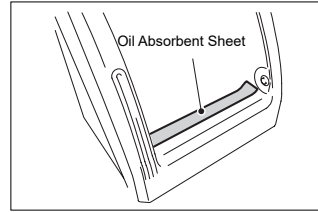


Fig.19

## ! CAUTION

- Replace Oil Absorbent Sheets after approx. 50 cycles (based on 3 hanpieces per cycle in Long Mode)
- Dispose of used Oil Absorbent Sheets as medical waste according to the laws and regulations of your country.

## (3) Replacing O-ring

- 1) Push out the worn O-ring with your fingers.
- 2) Place new O-ring into the empty groove.

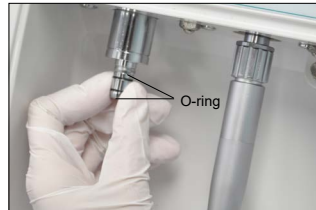


Fig.20

## (4) Replacing Air Filter

- 2) Pull out the Air Tube. (Fig. 21)
- 1) Pressing the Connector Ring. (Fig. 21)
- 3) Removing the two screws, remove the Air Filter. (Fig. 22)
- 4) Attach a new Air Filter following the removal steps in reverse. When attaching the Air Tube, insert it into the Connector.

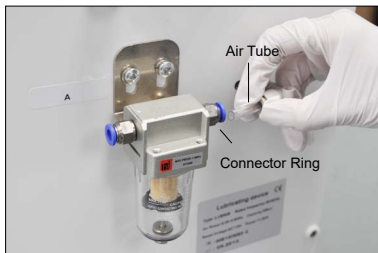


Fig.21



Fig.22

## ! CAUTION

- Do not remove the Air Filter Element until the air supply has completely stopped.
- Replace the Air Filter Element once every one to two years.
- Be careful not to attach the Air Filter upside down.

## (5) Draining Air Filter

When water eventually accumulates in the case, press the Drain Button at the lower part of the case to drain the Air Filter. (Fig. 23)

In addition to the Air Filter, drain the air supply to this device (Air Compressor) at least once a week.

## ! CAUTION

The air supply (Air Compressor) and Air Filter need to be clean and free from moisture. Drain the Air Compressor and Air Filter at least once a week. Moisture from the tank could mix in with the Maintenance Oil and defeat the purpose of this device.

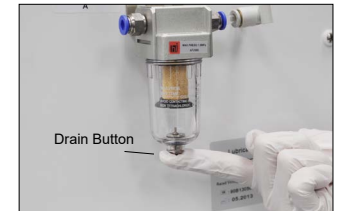


Fig.23

## (6) Changing Fuses

- 1) Before changing Fuses, be sure to turn off the Power Switch and unplug the Power Cord.
- 2) Squeezing the upper and lower ratchets of the Fuse Box inward at the same time, pull out and remove the Fuse. (Fig. 24)
- 3) Replace the Fuse with a new recommended Fuse (Refer 3. (1) "Fuse Rating") and push it into the correct position.



Fig.24

## ! CAUTION

- Before replacing Fuses, ensure that the Power Switch has been turned OFF and the Power Cord has been unplugged.
- Use only Fuses with the correct rating. (120V: 3AL250V, 220V/240V: 1.5AL250V)

## 7. Troubleshooting

If a problem occurs, check the following before asking for a repair. If none of these are applicable or the trouble is not remedied after action has been taken, a failure of this product is suspected. Contact your dealer.

Problem	Possible Cause and Check	Solution
The power does not turn on	Is the Cord Plug inserted into the outlet?	Insert the Power Cord Plug into the outlet
	Is the Power Cord Jack inserted into the inlet of the Control Unit?	Insert the Power Cord Jack into the inlet.
	Is the power turned ON?	Turn on the Power.
	Has the Fuse blown?	Replace the Fuse with the recommended Range.
The Control Unit does not clean and lubricate	Does the mode indicator light up?	Press the corresponding selector key to light mode indicator.
	Is the Door open? Is the error indicator light on?	Close the Door securely.
	Remove the Air Tube, press all three selector keys and press the start button. Does the Control Unit produce an operating sound? (Not buzzer)	If the Control Unit produces an operating sound, it has no fault. Check the Air Tube or the air supply. If the Control Unit produces no operating sound it has a fault. Contact your dealer.
The Control Unit does not lubricate and clean effectively	Is the Air Tube connected securely to the Air Connector?	Connect the Air Tube to the Connector Securely.
	Is the air pressure set within the specified range?	Set the Air Pressure between 0.35-0.6MPa. (3.5-6kgf/cm <sup>2</sup> or 50-60psi)
	Is the mode set at the Short Mode?	Select the correct mode according to the type of handpiece.
	Is the handpiece connected securely?	Connect the handpiece securely.
Oil Mist is released outside the Control Unit	Has an appropriate mode been selected?	Select the correct mode according to the type of handpiece.
	Check that the opening in the instrument head which receives the bur is facing the Control Unit Door.	When attaching the instruments make sure that the opening in the head which receives the bur is facing the Control Unit Door.

## SPECIFICATIONS

Model	CareMaster
Rated Voltage	AC120V 10% 60Hz AC230V 10% 50/60Hz
Input Voltage	120V:11.5VA 220V:12.0VA
Air Pressure	0.35-0.6MPa (3.5-6.0kgf/cm <sup>2</sup> ) (50-60psi)
Reservoir Capacity	350 ml
Dimensions	W280 x D275 x H 360 mm
Weight	15lb

### LIMITED WARRANTY

Beyes Dental Canada hereby warrants against defect in material and workmanship that for a period of 12 months from the date of purchase, this product will perform satisfactorily under normal use and service. No warranty claim can be inferred here, as wear may occur earlier or later than indicated above depending on use, frequency of sterilization and frequency of maintenance. Beyes shall under no circumstances be liable for incidental or consequential damages or damage due to improper use or maintenance.

This Warranty is subject to the following conditions:

Beyes will, without charge repair or replace (at Beyes sole discretion) any defective part/s covered in this warranty. If the conditions are met, the defective item must be returned to an authorized Beyes service center or distributor. Accompanied by the original invoice or packing list. This warranty is in lieu of all other warranties, expressed or implied.



Federal law restricts this device to sale by or on the order of a dentist, physician, or any other practitioner licensed by the law of the states in which he or she practices to use or order the use of this device.



# Beyes<sup>®</sup>

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