

iM3® HCR-100

INSTRUCTIONS FOR USE AND TECHNICAL MANUAL



Read this Operation Manual carefully before use for operation instructions, care and maintenance. Keep this Operation Manual for future reference.

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SAFETY PRECAUTIONS

- Read these safety cautions before use in order to operate the product safely and 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 should be followed.

Classification	Degree of Danger or Damage and Seriousness
DANGER	Explains an instruction where death or serious injury may occur.
WARNING	Explains an instruction where bodily injury or damage to device may occur.
CAUTION	Explains an instruction where possibility for minor to medium bodily injury or damage to device may exist.

DANGER

- Do not install, use this product or fill it with maintenance oil in room with a risk of explosion or flames.
- Do not install or use the product in direct sunlight or where the temperature exceeds 40C (104F)
- Do not use the product for other purposes than the maintenance (cleaning and lubrication) of handpieces described in this operation manual.
- Provide adequate ventilation. In the unlikely event of odours seek immediate ventilation.

WARNING

- Do not handle the power cord with wet hands.
- Be careful not to spill water onto the unit. May result in fire, electric shock or short-circuit.
- Do not disassemble or alter the unit. In case of service or repair, contact your dealer.
- In unlikely event of burning or smoke, immediately turn off the power switch and disconnect the power plug. Contact your dealer.
- Do not drop the unit. Place the unit on a flat surface.
- Only use fuses with rating, 120v: T800mA/250V, 220v/240v: T400mA/250V

CAUTION

- Always autoclave handpieces after they have been cleaned and lubricated with this product.
- Ideal operating environment is 10-40 C (50-104 F), humidity at 25-70%RH, atmospheric pressure at 500-1060hPa and no moisture condensation in the Unit. Use outside of these conditions may cause malfunction.
- Ideal storage environment is 10-50 C (14-122 f), humidity at 10-85%RH, atmospheric pressure at 500-1060hPa and the system is not subject to air with dust, sulfur or salinity.
- When installing the product leave a space of approximately 10cm around the unit.
- Place a collector such as a tray under the unit.
- Set the air pressure between 0.25-0.30Mpa
- Do not set the air pressure above 0.35Mpa
- Do not open the oil cap during operation. Open only after the unit completely stops.
- When opening the oil cap in case of abnormal stop (opening the door), wait for approx. 5 seconds before opening cap.
- After use, immediately turn off the power switch and close the air supply.
- 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 in the tank could mix in the maintenance oil and defeat the purpose of this device.
- Remove the air tube and the power cord if the unit will not be used for a long time.
- When storing the maintenance oil, keep away from strong oxidizing agents, combustible materials and strong acid chemicals.
- Only purchase replacement parts and consumables from iM3 or risk invalidating the warranty.

1. FEATURES

Performs uniform handpiece maintenance and lubrication.

Three handpieces can be cleaned and lubricated simultaneously keeping your hands clean.

TPCUSA rotating gear effectively and efficiently cleans and lubricates contra angle handpiece.

Pressing the air key can purge excess oil from the handpiece after lubrication and cleaning cycle to some extent.

Select the lubrication setting time from Short Mode, Long Mode and Extra Long Mode according to the handpiece.

The mist filters attached behind the door can keep mist leakage to a minimum.

2. SPECIFICATIONS

Model	SC-L1
Rated Voltage	AC120V10%~AC230V10% 50/60Hz
Input Voltage	24.0VA
Air Pressure	0.25~0.3Mpa(2.5~3.0kgf/cm ²)(50~85psi)
Dimensions	W280*D275*H360mm
Weight	6.8kg

3. PARTS NAMES



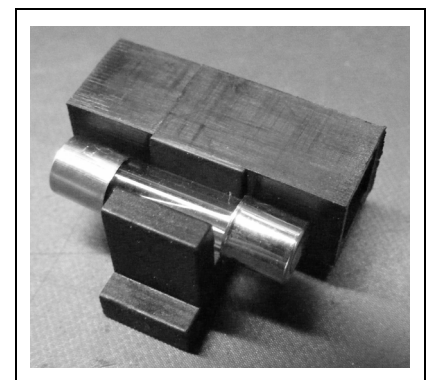
4. INSTALLATION AND ASSEMBLY

(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.

(2) Filling Maintenance oil

Check that the filter of the funnel is clean. Remove the oil cap and fill with the funnel. Fill it to the "full" level, while checking the oil level gauge. After filling oil, screw the oil cap back on tight.



DANGER

- Do not fill maintenance oil in the room with a risk of an explosion or near open flames.

CAUTION

Oil absorbent sheet

Place an oil absorbent sheet at the bottom of the lubricating and cleaning room of the unit. The oil absorbent sheet absorbs the maintenance oil that was used for lubricating and cleaning.

Connecting Power Cord

Insert the power cord jack into the inlet at the back of the unit.

5. OPERATION PROCEDURES

Attaching air turbine handpiece:

1. Remove the bur from the handpiece.
2. Open the door of the unit
3. Attach the handpiece to the joint and tighten the nut securely
4. Close the door securely.

CAUTION

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

Straight Handpiece

1. For the straight handpiece, attach the supplied test bur and lock it
2. Open the door of the unit and attach the handpiece to the E-type joint until it locks
3. Close the door securely.

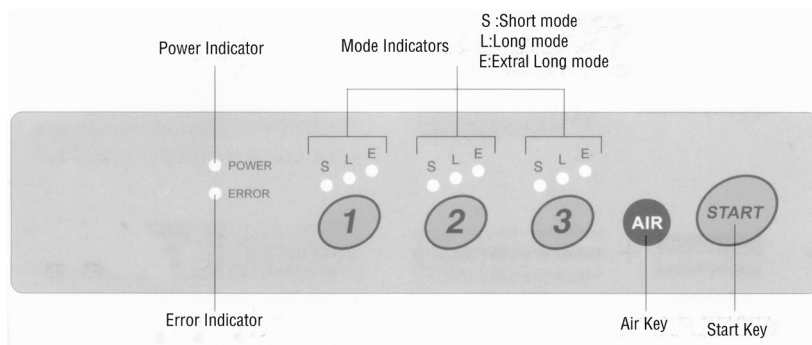
Contra Angle Handpiece

1. Remove the bur from the handpiece.
2. Open the door of the unit and attach the handpiece to the E-type joint until it locks
3. Point the bur insertion hole toward the door side and close the door securely.

CAUTION

- Be sure to remove the bur from the handpiece before connecting to each joint. For the straight handpiece, be sure to attach the supplied test bur and lock it before connecting the handpiece to each joint.
- For the contra angle handpiece, point the bur insertion hole toward the door side and close the door. Not pointing the bur insertion hole toward the door side may not allow the door to be closed with contact during closing

Cleaning and Lubricating



- 1) Connect the power cord plug to the power supply. Turn on the power switch, and the power indicator will light.
- 2) Press the selector button number of the corresponding handpiece. First push will select "S", Short mode, second push "L", long mode, and the 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 right mode for each handpiece.
- 4) Press the start key, and the automatically cleans and lubricates the handpiece. 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 tell the completion of the cycle.
- 6) Pressing the air key blows out air only from the joint with the mode indicator lighting to purge excess oil to some extent. Do as required

Mode	Handpiece	Lubrication and cleaning time	Air time
Short Mode	Air turbine Handpiece	About 30 sec	About 30 sec
Long Mode	Contra Angle Handpiece	About 45 sec.	About 45 se
Extra Long Mode	All Handpiece (Make a selection when lubrication and cleaning cannot be performed in the Short mode or Long mode.) Increasing Contra Angle Handpiece Decreasing Contra Angle Handpiece Air turbine Handpiece, Contra Angle Handpiece, and Straight Handpiece by other makes.	About 60 sec.	About 60sec.

CAUTION

- Connect to the correct power supply:
- Use only 3-wire power cords that have 3-prong grounding plugs and 3-hole grounded receptacles that accepts the unit's plug.
- Select an appropriate mode according to the type of handpiece. Selecting an inappropriate mode may release oil mist (misty solution) outside the unit.
- While the mode indicator does not light, the xxx does not function.
- When the error indicator lights, make sure that the door is closed securely.
- Immediately after purchase or if you have not used the xxx for a long time, repeat cleaning and lubrication approx four or five times before use.

NOTICE

You can select whether or not to allow the buzzer sound at the completion of the lubrication and cleaning cycle.

1. Turn on the Power switch while pressing the air key.
2. In 1-2 seconds or less, press the start key. The mode indicator changes at that time. S/L lighting: The buzzer sounds. L/E lighting: The buzzer does not sound.
3. After selecting either, press the air key in 1-2 seconds or less during lamp lighting to store the selection in memory.

Removing Handpiece

- Removing air turbine handpiece
 - Open the door after the mode indicator lights again and cleaning and lubrication cycles has completely finished. Loosen the nut and pull out the handpiece straight from the joint.
 - Removing E-type handpiece
- Open the door after the mode indicator lights again and cleaning and lubrication cycle has completely finished. Pull out the handpiece in axial direction while pressing the fixing release button of the E-type joint.

CAUTION

Waste off the maintenance oil collected at the bottoms of the cleaning chamber and the door. Dispose of wiped cotton cloth as medical waste according to the laws and regulations of your country.

6. DOOR

The door could be removed when cleaning or replacing the door gasket. To remove the door gasket, open the door, press the release button on right and remove the door. To mount the door, insert the pin into the left hole of the door and then insert the release button into the right hole until it locks.

CAUTION

Remove and/or mount the door on a flat and stable surface with holding the body firmly.

7. MAINTENANCE

Replacing Mist Filter:

After opening the door and removing

Used mist filters, attach each new mist Filter

CAUTION

- Replace mist filters approx. every 50 times of use.
- Dispose of used mist filters as medical waste according to the laws and regulations of your county.

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 directly to mist filters before use.

CAUTION

- Replace oil absorbent sheets approx. every 50 times of use at the condition of 3 handpieces at long mode.
- Dispose used oil absorbent sheets as medical waste according to the laws and regulations of your country.

Replacing O-ring:

1. Push out the worn O-ring with your thumb.
2. Insert new O-ring in the O-ring groove.

Changing Fuses:

Before changing fuses be sure to turn off the power switch and unplug the power cord. Squeezing the upper lower ratchets of the fuse box inward at the same time. Pull out and remove the fuse. Replace the fuse and push it into the Original position.

CAUTION !

When replacing fuses ensure that the power switch has been turned off and the power cord has been unplugged. Only use fuses rated 120V: T800mAL250V, 220V/240V: T400mAL250V

8.TROUBLESHOOTING

When trouble is found, check the following items again before asking repairs. If none of these are applicable or the trouble is not remedied even after action has been taken, a failure of this product is suspected. Contact your dealer.

Trouble	Probable Cause and Check
The power does not Turn on	Is the power cord plug inserted into the outlet?
	Is the power cord jack inserted into the inlet of the unit?
	Is the power turned on?
	Has the fuse burned?
The unit does not clean and lubricate.	Does the mode indicator light?
	Is the door open?
	Remove the air tube, press all three selection buttons and press start button. Does the Unit produce an operating Sound?
The unit does not lubricate and clean Efficiently.	Is the air tube connected to the specified range?
	Is the air pressure set within the specified range?
	Is the mode set at the Short Mode?
	Is the handpiece connected securely?
Oil mist(misty solution) Is released outside the Unit.	Has an appropriate mode selected?
	Check if the bur insertion hole of the contra angle handpiece faces the door.
Error indicator blink	Malfunction of motor. Contact your dealer.