Air-Turbine Handpiece

TWINPOWER TURBINE 4H

For direct connection to MORITA 4H couplings
PAR-4HEX-O, PAR-4HX-O, PAR-4HUEX-O, PAR-4HUMX-O

CE 0197 MORITA

Operation Instructions

4H

Thank you for purchasing a TWINPOWER TURBINE 4H handpiece.
In order to utilize the instrument's functions fully and ensure its safe and effective use, read this manual thoroughly before using the instrument and pay close attention to the operating procedures and precautions. Keep this manual at hand for quick reference.
For instructions concerning the non-light equipped models, simply ignore the instructions for use of the light.

Notice for Protection of Intellectual Property Rights

CN PAT. 03123631.6, CN PAT. 03123632.4, CN PAT. 0680009297.1, CN PAT. 1010526237.5, DE PAT. 19807566, DE PAT. 19860953, DE PAT. 10060152, DE PAT. 10320902, DE PAT. 10320903, DE PAT. 112006000658, US PAT. 6676374, US PAT. 7048540, US PAT. 5902108, US PAT. 7329123, US PAT. 7927101, US PAT. 8721333, KR PAT. 0971889, JP PAT. 3208345, JP PAT. 3672781, JP PAT. 3795722, JP PAT. 3897953, JP PAT. 4088475, JP PAT. 4122174, JP PAT. 4160319, JP PAT. 4879164, JP PAT. 5011365, JP PAT. 5186464, JP PAT. 5639923, JP DESIGN. 1211559, JP DESIGN. 1221685

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The user (i.e., healthcare facility, hospital, clinic, etc.) is responsible for supervising the use and maintenance of medical devices.
This instrument must not be used by anyone other than a dentist, doctor or other legally qualified professional.
This instrument must not be used for any purpose other than the provision of dental treatment.
Federal law restricts this device to sale by or on the order of a dentist (for U.S.A.).

The following symbols and expressions indicate the degree of danger and harm that could result from ignoring the instructions they accompany:

⚠WARNING This warns the user of the possibility of serious injury or death to the patient, damage or complete destruction of the instrument or other valuable property, and fire.

⚠NOTE This warns the user of the possibility of slight or moderate injury to the patient.

❗(Usage Note) This alerts the user of important points concerning operation of the instrument or the risk of damage to it.

Disclaimer

J. MORITA MFG. CORP. will not be responsible for the following matters, even during the warranty period.

1. Malfunction or damage resulting from repairs made by personnel not authorized by J. MORITA MFG. CORP.
2. Any unauthorized modifications to its products
3. Malfunction or damage resulting from maintenance or repairs carried out using parts or components other than those specified by J. MORITA MFG. CORP.
4. Malfunction of or damage to Morita products caused by products made by other manufacturers unless they were supplied by J. MORITA MFG. CORP.
5. Malfunction or damage resulting from failure to observe the safety precautions or operating procedures described in these Operating Instructions
6. Malfunction or damage resulting from ambient conditions that do not conform to the operating conditions specified in these Operating Instructions, such as an improper electrical power supply or installation environment
7. Malfunction or damage resulting from a natural disaster, such as a fire, earthquake, flood or lightning

J. MORITA MFG. CORP. maintains supplies of service parts for 10 years after discontinuation of their production.
For the duration of this period, we will supply replacement parts and be able to repair the product.

* Replacement parts and consumable parts are described in the Regular Inspection List. Replace parts as necessary based on the degree of wear and length of use.

Standards and Procedures for the Disposal of Medical Devices

If there is a possibility that a medical device is contaminated, the dentist or doctor responsible for the patient's treatment must confirm that it is uncontaminated, and must then have it disposed of by a healthcare facility or an agent licensed and qualified to handle standard industrial waste and industrial waste requiring special treatment.

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Maintenance and Inspection

* This instrument should be inspected every 3 months in accordance with the Regular Inspection List.
* Maintenance and inspection are generally consider to be the duty and obligation of the user, but if, for some reason, the user is unable to carry out these duties, he may rely on a qualified medical device serviceman. Contact your local dealer or J. MORITA OFFICE for details.
* For repairs, contact J. MORITA OFFICE or your local dealer.

Regular Inspection List

Item	Procedure
Chuck Gripping Strength	Use the Chuck Grip Tester to check the chuck's gripping strength. Replace the Cartridge if the chuck has lost its gripping strength.
Cap Tightness	Make sure that the cap and the cap screw are tightened properly.
Rotation and Spray	Make sure the instrument operates smoothly and emits a fine, misty spray.
Light Guide	Make sure the light guide is not chipped, cracked or sticking out.

Service and other Contacts

TwinPower Turbine may be repaired and serviced by

- the technicians of J. MORITA's subsidiaries all over the world.
- technicians employed by authorized J. MORITA dealers and specially trained by J. MORITA.
- independent technicians specially trained and authorized by J. MORITA.

For repairs or other types of service, contact your local dealer or J. MORITA OFFICE.

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Specifications

[Specifications may be changed without notice due to improvements.]

TWINPOWER TURBINE 4H (PAR-4H∗-O) *MORITA 4H coupling Models	Type			
	4HEX	4HX	4HUEX	4HUMX
Bearing	Ball bearing			
Chuck	Push chuck			
Cartridge	Capsule cartridge		Rotor cartridge	
Air Pressure [MPa] (at handpiece end)	0.20–0.29			
Recommended Air Pressure [MPa] (at handpiece end)	0.23–0.25			
Water Pressure [MPa] (at handpiece end)	0.05–0.20			
Tip Air Pressure [MPa] (at handpiece end)	0.20 minimum			
Exhaust Pressure [MPa] (at handpiece end)	0.03 maximum			
Speed [rpm] (at 0.2 MPa air pressure)	370,000 ±30,000	350,000 ±30,000	370,000 ±30,000	
Air Flow [NL/min]	60 maximum (when air pressure at handpiece connection is 0.29 MPa)			
Spray Hole No.	3			1
Length [mm]	110			
Weight [g]	50			
Head Diameter [mm]	10.5	12	9	
Head Height [mm]	13.2		12.7	10.6
Usable Bur Shank Diameter [mm]	1.59–1.60			
Usable Bur Shank Length [mm]*2	10 and over			7.5 and over
Usable Bur Length [mm]*2	22 and under			20 and under
Tip Diameter [mm]	2.0 and under			

Burs

Use burs that conform to ISO 1797-1.*1

- Using dirty shanks will cause the chuck to lose its gripping power and accelerate wear on the burs or points.
- Some bur detergents contain components that cause metals to rust. Be sure to wash away the bur detergent before inserting the bur into the chuck. If any bur detergent enters the chuck, the cartridge and chuck will malfunction.
- Diamond points bend easily. Even a new bur or point may not have good rotational balance and they may make an extremely loud metallic sound when rotating. In such cases, stop using the bur as it is defective.

*1 If any bur detergent, dust, or other foreign matter enters the chuck, contact your local dealer or J. MORITA OFFICE to request an inspection.

*2 Use miniature burs or short-shanked burs for PAR-4HUMX-O. Do not use miniature burs or short-shanked burs for any other type of handpiece.

⚠WARNING

- Never use the types of burs or points described below. Using such burs or points is extremely dangerous as they may become detached and cause injury to the patient's oral cavity or be swallowed by the patient.

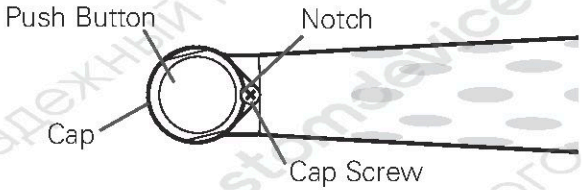
Burs or points that do not conform to ISO standards; that have any grooves, scratched or damaged blades or shanks; that are deformed, bent, rusty, chipped or broken; or that have been modified (such as short-shanked burs).

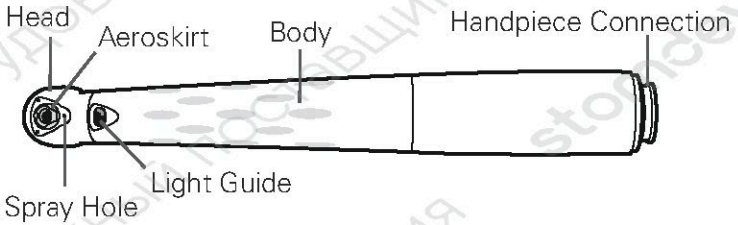
⚠NOTE

- When using welded or blazed burs, ensure that the bur tip does not wobble.
- Be sure to follow the requirements regarding the usable bur length and the shank length. Using non-supported burs is dangerous as they may become detached and cause a malfunction.

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Parts Identification





Symbols

CE(0197) marking
Conforms with the European Directive, 93/42/EEC.

0197 CE marking
Conforms with the European Directive, 2011/65/EU.

135°C Autoclavable up to 135°C (275°F)

Supports high-temperature cleaning and disinfection.

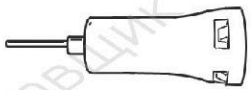
Manufacturer
(Operation Instructions only)

EC REP Authorised representative in the European Community
(Operation Instructions only)

Accessories

[Accessories differ depending on how they are sold.]

Chuck Grip Tester
Code No. 5010695 (yellow-green)



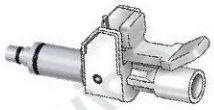
(Ethanol disinfectable)

Spray Hole Wire
Code No. 5250940



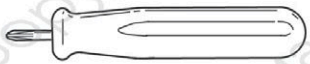
(Autoclavable)

4H Spray Nozzle Set
Code No. 5010307



(Ethanol disinfectable)

Phillips Screwdriver
For PAR-4HEX-O and PAR-4HX-O
Code No. 5011440



(Ethanol disinfectable)

Cap Tool
For PAR-4HEX-O and PAR-4HX-O
Code No. 5011328



(Ethanol disinfectable)

AR Spray
Code No. 5010212
or 5010216



(Ethanol disinfectable)

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Operating and Storage Conditions

Use and store the handpiece under the following conditions.

Operating Temperature: 10–40°C(50–104°F); Humidity: 30–75 %RH (without condensation); Atmospheric pressure: 700–1,060 hPa

Storage Temperature: -10–70°C(14–158°F); Humidity: 10–85 %RH (without condensation); Atmospheric pressure: 700–1,060 hPa

* Do not expose the handpiece to direct sunlight for an extended period of time.
* If the handpiece will not be used for an extended period of time, store it in a clean, dry place after autoclaving it.
* The service life (useful life) of the handpiece will be four years (based on self-certification) only if maintenance and inspections are properly performed following its manufacture and shipping. The service life for the cartridges is one year.

Warnings, Notes and Usage Notes

⚠WARNING

- In cases of tooth extractions, split teeth, endodontic treatment etc. or incision or open wounds in soft tissue, care must be taken that air emitted from the handpiece does not cause a subcutaneous emphysema.
- If the bur or point becomes detached while you are drilling a tooth, stop using the instrument immediately.
- When removing tooth decay, never apply force in a direction that could result in the bur or point becoming detached (scooping up) or apply excessive force.
- Always spray water while using the handpiece to avoid injury to the dental pulp.
- Wait until the bur stops rotating before placing the handpiece inside the patient's oral cavity or removing it.
- Avoid operating the handpiece in the following ways as doing so could cause the head, push button and cap to heat up, resulting in burns to the patient.
  - Holding down the push button while the handpiece is in operation.
  - Operating the handpiece with the push button pressing against the teeth opposite the working area when the patient's mouth is not fully open.
  - Operating the handpiece when abnormal rotation or vibration is suspected.

⚠NOTE

- Wear safety glasses to prevent injury to your eyes.
- Be sure to remove the bur or point when storing the handpiece in the dental chair unit. Storing the handpiece with the bur or point attached could result in physical injury or property damage.

❗ Crown removal and similar operations produce considerable vibration, which can result in the bur getting stuck in the handpiece. Avoid this by stopping at regular intervals to remove and reinsert the bur, rather than drilling continuously.

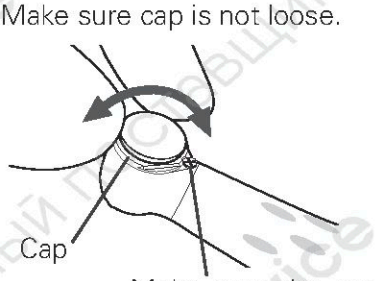
1. Before Use

* The handpiece is not sterilized before shipping. It must be autoclaved before it is used for the first time.

Pre-use inspection: Check for the following before using the handpiece.

- The cap and cap screw have been tightened properly.
- There are no gaps between the connection parts of the cap, head, and body and no rattling can be heard.
- There are no cracks, chips, protrusions or dents on the light guide.
- There are no rust, scratches or dirt.
- The handpiece rotates smoothly and does not slow down, there is no abnormal vibration or noise, the head, push button or cap does not heat up.
- The spray has a fine, misty quality and is emitted from all of the spray holes.

If an abnormality is found, refrain from using the handpiece and have it professionally repaired.



⚠WARNING

- If the cap or the cap screw are loose or if they are damaged or worn, the cap or the cartridge could fly off inside the oral cavity and cause an injury.

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2. Attaching the Handpiece

* Refer to the user manual for the CP4-(W-)O, CP4-(W-)LD couplings.

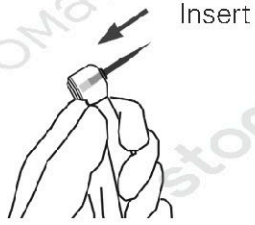
⚠ WARNING

- Before connecting the handpiece, make sure the lamp cover and connection end are not loose, worn, or damaged.
- Before using the handpiece, always try operating it outside the oral cavity first to ensure that it is securely attached to the tube or the coupling. If it is not securely attached, the tube could become detached and cause physical injury.

❗ Handle the handpiece carefully. Do not drop it, bang it against the dental chair unit, etc. Doing so could result in abnormal rotation or, in the event of damage to the light guide, reduced illumination.

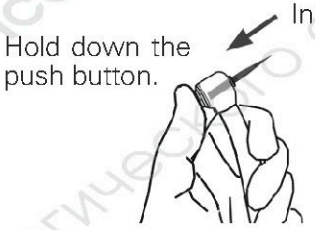
❗ Ensure that the handpiece connection or coupling is free of dust and other foreign matter (fiber such as cotton, O-ring pieces, etc.). Failure to do so could result in damage to the handpiece.

3. Inserting Burs



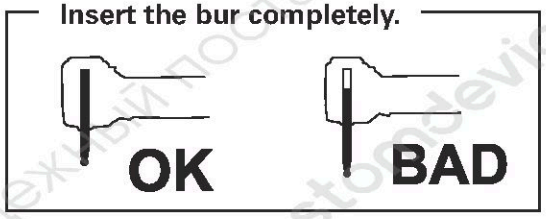
Take care to insert the bur straight all the way in.

❗ Do not force the bur in without holding down the push button. Doing so will damage the bur and the chuck.



Hold down the push button firmly, push the bur all the way in, and then release the push button.

* It is easier to press the push button if you support the body of the handpiece with your forefinger positioned at a point between the head and the body.



⚠ WARNING

- Insert the burs and points as far as they will go into the chuck.
- Before using the handpiece, try operating it outside the oral cavity first to ensure that the bur or point does not wobble, there is no abnormal vibration or noise, and no heat is generated.
- If the bur or point is not completely inserted or an abnormal bur or point is used, the bur or point may become detached and be swallowed by or cause physical harm to the patient.
- Wait until rotation stops completely before inserting or removing bur or point.

⚠ NOTE

- Exercise caution when inserting or removing the bur or point so as not to injure your fingers.
- If you notice any abnormal noise or vibration during use, replace the bur or point with a new one and then try operating the handpiece to check if the problem has been resolved.

❗ If the bur gets stuck in the handpiece, do not forcibly remove it using pliers or other tools; have it repaired instead. If excessive force is applied, the chuck may become damaged.

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4. After Use

Be sure to remove the bur or point from the handpiece after use. If the bur or point is left in the handpiece, it may get stuck.

5. Maintenance and Inspection

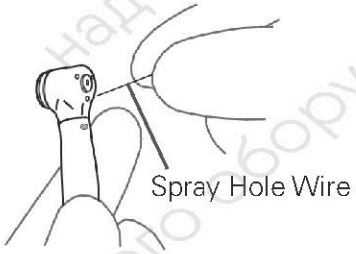
Be sure to follow the procedure below when performing daily maintenance.

Cleaning → Disinfection → Lubrication → Inspection → Packing → Sterilization

Cleaning



Disconnect the handpiece from the tube. Clean off the cutting debris in running water with a soft brush and then wipe off the water.

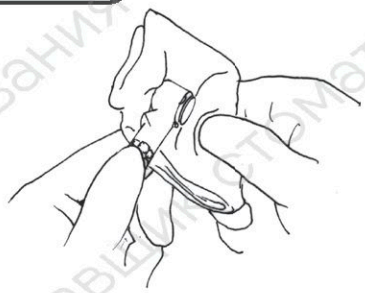


Clean the spray hole with the spray hole wire provided.

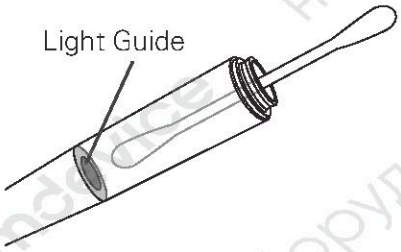


After cleaning, dry the spray hole with air from the syringe or by another such method.

Disinfection



Wipe the entire handpiece with a piece of gauze dampened with Ethanol for Disinfection (ethanol 70 to 80 vol%).



Put a little ethanol on a cotton swab and stick it in the connection end of the handpiece.
Lightly wipe the light guide with it.



Gently wipe the light guide with a cotton swab.

- If a medical agent being used for the treatment has adhered to the handpiece, wash it off in running water.
- Do not use any cleaning agent other than Ethanol for Disinfection (ethanol 70 to 80 vol%). If too much Ethanol for Disinfection is applied to the piece of gauze or cotton swab, it will seep into the handpiece and cause a malfunction.
- If dust or other impurities enter the handpiece, they may cause poor rotation or poor spray delivery.
- Do not clean the handpiece ultrasonically.
- Do not immerse the handpiece in or wipe it with any of the following: functional water (acidic electrolyzed water, strong alkaline solution, and ozone water), medical agents (glutaral, etc.), or any other special types of water or commercial cleaning liquids. Such liquids may result in metal corrosion and adhesion of the residual medical agent to the handpiece.

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Operating conditions for high-temperature washer-disinfectors

* When using a high-temperature washer-disinfector to clean the handpiece, strictly adhere to the conditions specified below.

High-temperature cleaning conditions

Unit Name	Mode	Detergent (concentration)	Neutralizer* (concentration)	Rinse (concentration)
Miele G7881	Vario TD	neodisher mediclean (0.3 - 0.5%)	neodisher Z (0.1 - 0.2%)	neodisher mieclear (0.02 - 0.04%)

* After cleaning there may be streaks or white spots on the instrument.
Use a neutralizer only if there are streaks or white spots.

Operating Precautions

- Always use a handpiece holder when washing the handpiece, making sure to rinse the inside of the handpiece thoroughly.
- If any medical agent remains inside the handpiece, it may corrode or clog the air or water pipe, resulting in a malfunction of the handpiece.
- For details on handling medical agents or adjusting their concentration, refer to the user manual for the washing device.
- After washing is complete, check to see if the handpiece, including its inside, is completely dry. If any water remains inside the handpiece, expel it with an air gun or another such tool. Failure to do so could result in the remaining water coming out during use and cause poor lubrication or sterilization.
- Always lubricate the handpiece after washing.

- Inappropriate cleaning methods and solutions will damage the handpiece.
- Do not clean the handpiece using strong acidic or alkaline solutions that could cause the metal to corrode.
- Do not leave a handpiece inside the high-temperature washer-disinfector.

Lubrication

AR Spray



Before autoclaving, make sure that you lubricate and clean the handpiece with the AR spray.

⚠ WARNING

- Do not point the AR Spray can at anyone.
- Do not use the spray in a closed space without proper ventilation. Open windows and turn on exhaust fans to make sure the room is well ventilated.
- Do not get the spray in your eyes. If you accidentally get it in your eyes, wash your eyes with plenty of water and see a doctor.
- Do not get the spray on your skin. If it gets on your skin, wash it off with soap and water.
- If used in a sink or other enclosed space, a flammable mist could permeate the air; keep the area free of open flames or other ignition sources.

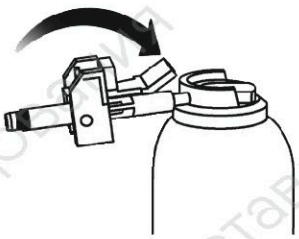
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Push the lever on the spray nozzle up in the direction of the arrow.
Cover the head of the handpiece with gauze, insert the chuck spray nozzle tip into the bur hole, and then spray for two seconds.





Push the lever on the spray nozzle down in the direction of the arrow.
Insert the nozzle into the handpiece connection and spray for two seconds.



Connect the handpiece to its tube.
Operate the handpiece for at least 15 seconds to expel excess lubricant from the head and then wipe it off with a piece of gauze.
Disconnect the handpiece from the tube.

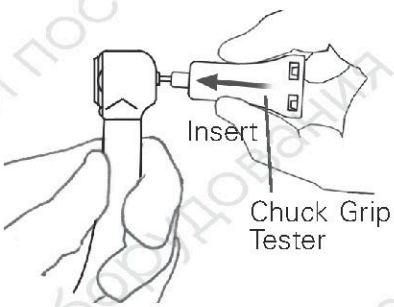
- Never use any spray other than the AR spray.
- Use the spray nozzle designed for the handpiece connection.
- Always hold the can in an upright position.
- Failure to lubricate the handpiece will result in a malfunction.
- Insert the spray nozzle tip straight into the bur hole. If the spray nozzle tip is not inserted straight, it may become damaged.
- In order to maintain the performance of the handpiece, make sure that you spray lubricant both at the handpiece connection and in the bur hole.
- When wiping off excess oil from the head, make sure that you do not touch the push button while the handpiece is running. Doing so will result in wear to the cap and cartridge, making insertion and removal of the bur difficult.



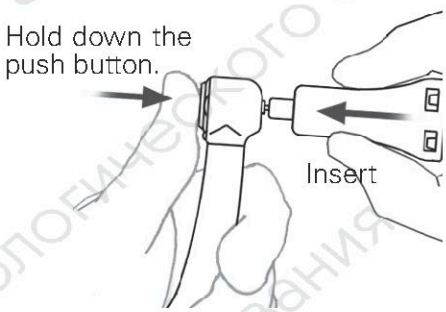
Inspection — Chuck Grip Test

⚠ WARNING

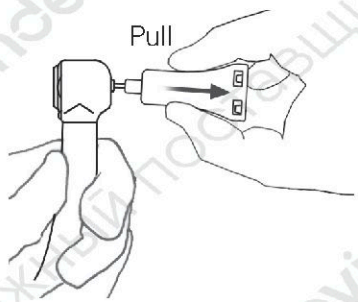
- Test the chuck grip at least once a day, as weakening of the chuck grip could result in a bur or point causing injury to the patient's oral cavity or in a bur or point being swallowed by the patient.



Take care to insert the tester straight all the way in.



Hold down the push button firmly, push the tester all the way in, and then release the push button.

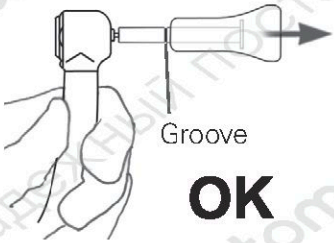


Pull the tester slowly until you see a groove.

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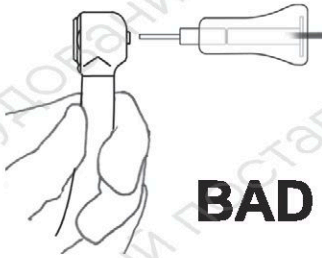
If you see a groove



Chuck grip is normal

Stop pulling as soon as you see the groove, and slowly return the tester piece to its original position.
Hold down the push button firmly and pull the tester out straight.

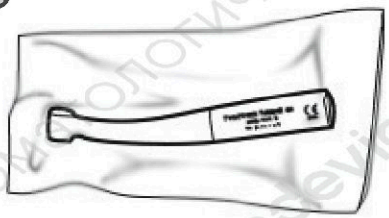
If you do not see a groove and the tester comes out



Chuck grip is weakened

Clean the handpiece with the AR spray and then perform the test again.
If the chuck grip is not restored after cleaning, replace the cartridge.

Packing



Place the handpiece in a sterilization pouch.

Sterilization

Autoclave the handpiece.
Recommended autoclaving conditions: 134°C (273.2°F) in a sterilization pouch for at least 5 minutes
Minimum drying time after sterilization: 10 minutes



⚠ WARNING

- To prevent the spread of serious, life-threatening infections such as HIV and hepatitis B, the handpiece must be autoclaved after each patient's treatment has been completed.

⚠ NOTE

- Instruments are extremely hot after autoclaving; do not touch them until they cool off.

- Do not sterilize the handpiece by any method other than autoclaving.
- Remove the bur or point before autoclaving.
- Failure to clean and lubricate the handpiece before autoclaving will lead to a malfunction of the handpiece.
- The sterilization and drying temperatures must not exceed 135°C (275°F). A drying temperature in excess of 135°C (275°F) will result in contamination of the handpiece or cause it to malfunction.
- When autoclaving the handpiece, do not let it come into contact with the heat source or the body of the autoclave to avoid damage to the O-rings or other parts due to the high temperature. When autoclaving the handpiece in an upright position, make sure that it is placed in the autoclave with its head at the top.
- Do not leave the handpiece in the autoclave.

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6. Replacement Parts

* Replacement parts and consumable parts are described in the Regular Inspection List. Replace parts as necessary based on the degree of wear and length of use.
* Order parts from your local dealer or J. MORITA OFFICE.

Capsule cartridge		Rotor cartridge	
PAR-4HEX-O	PAR-4HX-O	PAR-4HUEX-O	PAR-4HUMX-O
Code No. 5010862	Code No. 5010863	Code No. 5011147	Code No. 5011148
			 A dedicated replacement tool is included.

Cap (including O-ring and screw)		
PAR-4HEX-O	PAR-4HX-O	PAR-4HUEX-O PAR-4HUMX-O
Code No. 5011387	Code No. 5011386	Code No. 5011161
		

Replacing Cartridges

In the event of any of the following circumstances, replace the cartridge or have it repaired: problems with regard to insertion, removal or retention of the bur or point; poor rotation; bur wobble; heat generation; or noise.

* For details on replacing the cartridge, refer to the manual accompanying the replacement cartridge.

7. Troubleshooting

If the handpiece does not seem to be working properly, the user should first inspect the locations described below. For repairs, contact your local dealer or J. MORITA OFFICE.

◆Cannot insert burs or points

Lubricate the chuck and then reinsert an unused bur to check if the problem has been resolved. If this does not resolve the problem, replace the cartridge (as well as the cap if necessary).

◆Poor rotation

If air is coming out of the head

After cleaning the handpiece with the AR spray, attach an unused bur and check again to see if the problem has been resolved. If abnormal rotation is still observed, replace the cartridge.

If air is not coming out of the head

Disconnect the handpiece from the coupling or the tube and operate the foot control. If air comes out of the tube, have the handpiece repaired.

◆Poor water delivery

If no water is coming out of the spray hole

Disconnect the handpiece from the coupling or the tube and operate the foot control. If water comes out of the tube, have the handpiece repaired.

If a spray hole does not emit water

Clean the spray hole with the wire provided. If the spray hole still does not emit water, check the O-rings on the coupling or the tube. In addition, check the water volume control for the coupling or the dental chair.

If water is not emitted as a spray

Have the handpiece repaired.

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TERMS AND CONDITIONS

J. MORITA MFG. CORP. warrants the Product as follows:

1. **Warranty Term.**
   J. MORITA MFG. CORP. warrants that the Product will be free from defects in materials and workmanship for 24 months.
2. **Items Not Covered by Warranty.**
   This Warranty will not cover parts of the Product or consumables which normally need to be replaced such as glass or rubber components, lamps, cartridge, ball bearings and the like. Further, this warranty will not cover defects or damage caused by:
   a. Failure to operate or use the Product in accordance with the Operation Instructions or warning/cautionary labels.
   b. Modifications of the Product, connecting the Product to other products, or using components or replacement parts not specified or approved by J. MORITA MFG. CORP.
   c. Repairs performed by parties not designated by J. MORITA MFG. CORP.
   d. Accidents or forces outside of J. MORITA MFG. CORP.'s control, such as dropping the Product or collision of the Product with other objects, fire, flood, natural disaster, etc.
   e. Use or operation of the Product in settings or under conditions not specified by J. MORITA MFG. CORP. or set forth in the Operation Instructions including, without limitation, unauthorized changes in equipment settings, connection to unauthorized devices.
3. **Remedies of Customer.**
   Customer must present this Warranty when claiming coverage or application thereof, and either ship or deliver the Product to an authorized location of J. MORITA MFG. CORP. or its subsidiaries or authorized dealers. Upon receipt and verification of this Warranty, inspection of the Product, and determination of coverage by this Warranty, J. MORITA MFG. CORP. will, at its sole option, supply the parts or components either replaced or repaired free of charge to the Customer. Delivery and shipping charges are the responsibility of the Customer.
4. **LIMITATIONS AND EXCLUSIONS FROM WARRANTY.**
   The remedy set forth in paragraph 3 is the sole and exclusive remedy of Customer. J. MORITA MFG. CORP. MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES AND SPECIFICALLY EXCLUDES ALL OTHER WARRANTIES INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL J. MORITA MFG. CORP. BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL, DIRECT OR INDIRECT, OR SPECIAL DAMAGES OF ANY KIND INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF REVENUE, LOSS OF BUSINESS OR BUSINESS OPPORTUNITY, OR OTHER SIMILAR FINANCIAL LOSS ARISING OUT OF THE PERFORMANCE, USE OR INTERRUPTED USE OF THE PRODUCT.
5. **Repairs Not Covered by Warranty.**
   With respect to repairs not within the period of this Warranty or otherwise not covered by this Warranty, J. MORITA MFG. CORP. will perform the same, timely, efficiently, and for an appropriate cost.

24 Months

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