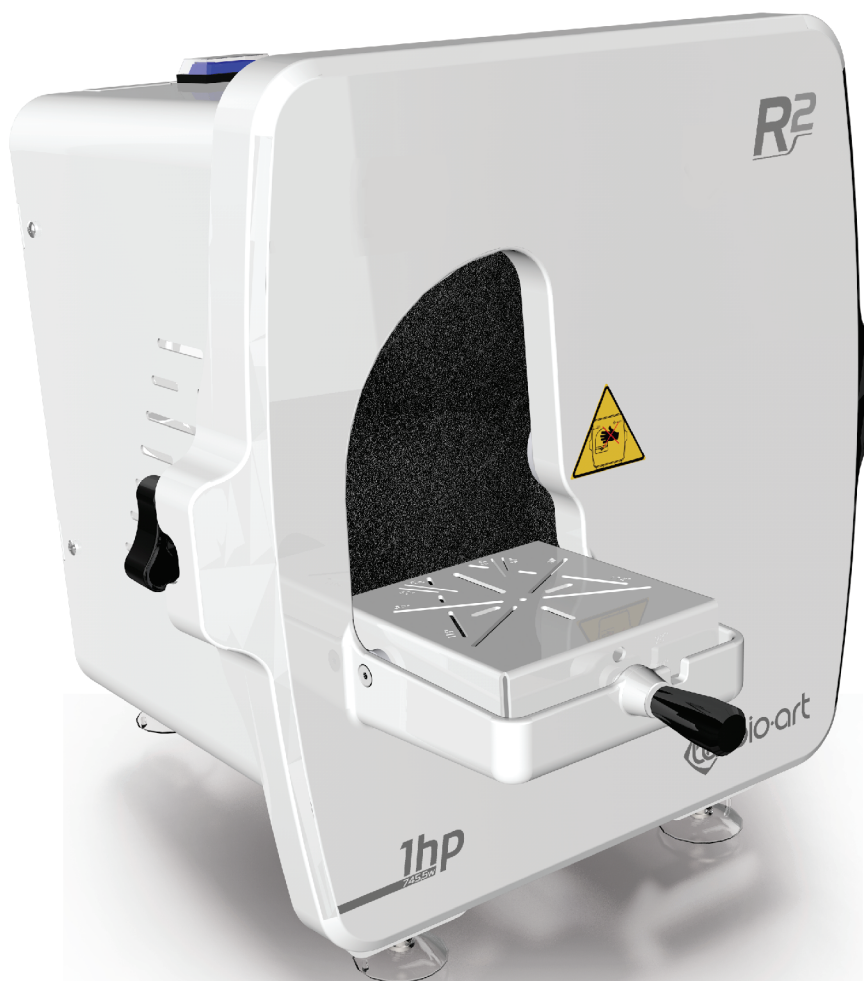


Cast Trimmer

Technical instruction manual



► INDEX ◀

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► 1 - INTRODUCTION ◀

The Bio-Art Plaster Cutter is equipment developed for dental use, indicated for cutting and finishing of plaster models. Its powerful motor 1hp and 3,400rpm provides excellent yield when cutting plaster models, even those of high hardness.

Its small size facilitate its installation on the work bench, while its good ergonomics and feet with suction cups provide stability and safety during use.

The broad access aperture and the table, whose plane is adjustable at 90 and 98° in relation to the abrasive disk, adapt to different types of models.

There is a water outflow valve to adjust according to the type and the volume of plaster, facilitating the cutting process, avoiding dust and providing cleaning of the abrasive disk. The water input valve is driven automatically when the cutter is turned on by means of its switch.

For the user's safety, the Bio-Art Plaster Cutter is equipped with a safety switch, which impedes its functioning in case its lid is open.

Before installing and using your plaster cutter, read the instructions in this manual carefully, in order to assure correct use and improve its performance.

► 2 - TECHNICAL SPECIFICATIONS ◀

Bio-Art Plaster Cutter.

Dimensions:

Without packaging.....(LxWxH) 460 mm x 350 mm x 360 mm

With packaging.....(LxWxH) 480 mm x 370 mm x 365 mm

Diameter of the abrasive disk.....10" (255 mm).

Weight:

Without packaging.....14 kg.

With packaging.....14.5 kg.

Electrical characteristics:

Power.....1 hp (750 W).

Rotation.....3400 rpm.

Voltage.....127V/60Hz or 220V/60Hz (+-10%)

Power consumption..... 12.8 kWh a month (used 1 h a day for 22 days)

Protection against electric shocks..... Class 1

Hydraulic characteristics:

Minimum water supply pressure: 0.4 kgf/cm²

Maximum water supply pressure: 4 kgf/cm²

Average water consumption 2.5 l/min (3.3 l/month) considering 1 h a day for 22 days

General:

Working temperature ... 5°C to 40°C

Relative humidity 5% to 90%, without condensation

Maximum operation altitude 3500 m

IP contamination class IPX0

Noise level 75 db at 1.0m.

► 3 - PACKAGE CONTENT ◀

01 Bio-Art Plaster Cutter.

01 Water input hose 1.4 m.




















01 Water output hose 2.0 m.

01 Adapter from ¾ to ½ inch.

01 Instruction Manual.

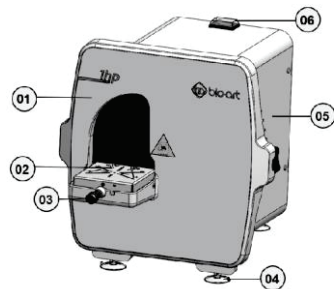


► 4 - SYMBOLS USED ON THE PRODUCT ◀

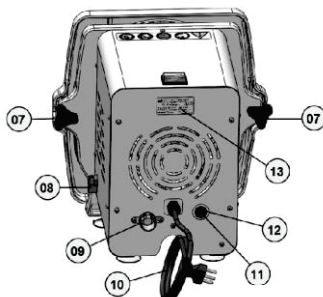
 Manufacturer's Data	 Serial Number	 Selective Disposal	 Check the Instruction Manual	 Date of manufacture
 Model code	 Recyclable	 Keep protected from sun light	 Fragile	 Maximum stacking
 Keep in dry place	 This side up	 Protection grounding	 Attention, do not touch the disk	 Attention
 Check the instruction Manual	 Use protection goggles	 Use protection gloves	 Use a mask	

► 5 - DESCRIPTION OF THE COMPONENTS ◀

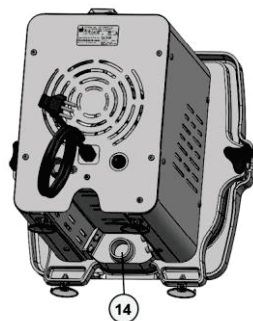
- [01] Frontal lid
- [02] Working table
- [03] Table adjustment handle
- [04] Suction cups
- [05] Cabinet



- [06] Main switch
- [07] Lid locking knob
- [08] Mini water valve
- [09] Connection of the water input valve
- [10] Power supply cord
- [11] Fuse compartment
- [12] Fuse



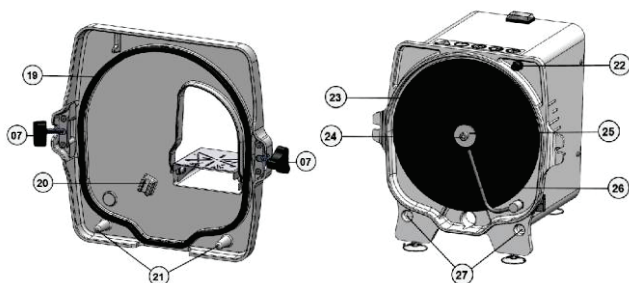
- [13] Indelible label
- [14] Water output connection
- [15] Water input hose
- [16] Rubber ring for hose sealing
- [17] Adapter from 3/4" to 1/2"



- [18] Water output hose
- [19] Lid sealing
- [20] Irrigation pipe guide
- [21] Lid guide tower



- [22] Safety switch
- [23] Abrasive disk
- [24] Disk fixing screw
- [25] Disk fixing washer
- [26] Irrigation pipe
- [27] Lid guide fitting



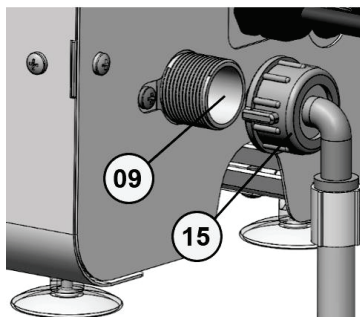
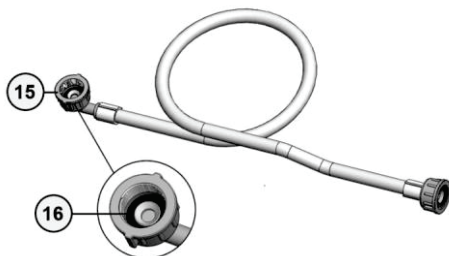
► 6 - IDENTIFICATION OF THE PLASTER CUTTER



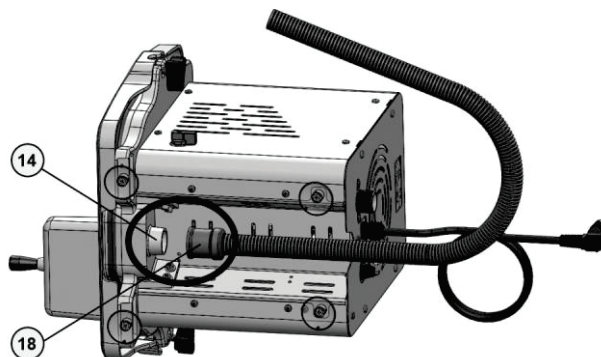
Model of the indelible product identification label, located in the rear part of the Plaster Cutter for identification of the technical data.

► 7 - INSTALLATION

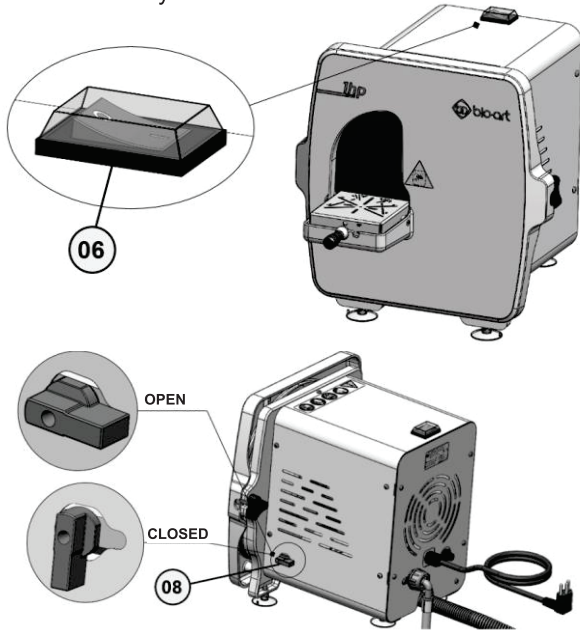
- Carefully unpack the plaster cutter and check whether it has not been damaged during transport.
 - Place the equipment on a flat and firm surface, far from any source of heat.
- Close to the installation location, there shall be a point of water supply with a valve and a point for water disposal.
- First, check whether the rubber sealing ring [16] is at both ends of the water input hose [15]. Then, screw one of the hose ends [15] to the water input connection [09] of the Plaster Cutter firmly, and the other end, at the water point. Do not use tools for this purpose.



- Identify the side of the water output hose [18] with rubber end and connect it to the water outlet [14] of the Plaster Cutter, located in the upper part. The other end shall be placed at the location, where the water will be disposed. The water disposal location shall be tilted in relation to the water outlet of the Plaster Cutter, in order to facilitate the water flow, avoiding clogging.



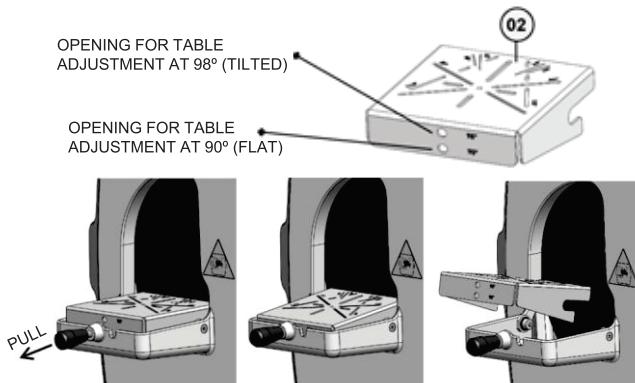
- Connect the power supply cord [10] of the Plaster Cutter to an electric socket of the same voltage as that of the equipment, correctly grounded.
- Switch the Plaster Cutter on by means of its main switch [06] situated in the upper part of the equipment. The light of the switch will turn on, its motor will be driven and the water input valve will open automatically.



► 8 - USE INSTRUCTIONS

•Always use personal protection equipment (PPE), such as safety goggles, safety gloves and mask against dust. It is not recommended to use too loose clothes, with long sleeves, necklaces, earrings, rings or any kind of accessory, which might snag on the Plaster Cutter disk. Hold your hair or use cap, if you have long hair, as well.

•According to the need, adjust the tilting of the tipper working table [02] of the Plaster Cutter. For this purpose, pull the adjustment knob [03] until releasing the table movement, adjust its tilting to 90° (flat) or 98° (tilted) and release the adjustment knob [03] for the table to be locked in the selected position.



- Switch the Plaster Cutter on by means of its main switch [06], situated in the upper part of the equipment. The light of the main switch [06] will turn on, its motor will be driven and the water input valve will open.
- Open the water valve on the wall and then, adjust the mini water valve [08] of the Plaster Cutter according to the desired water flow.
- Position the plaster model to be cut on the working table [02] of the Plaster Cutter. For better cutting precision, there are marks on the surface of the working table [02], which serve as a reference to estimate the cutting angles of the model.
- Once work is complete, switch the Plaster Cutter off by means of its main switch [06]. When the work is complete, we recommend cleaning the surface of the working table [02] and the front lid [01] using a wet cloth.
- To clean the working table [02], the process is the same as for adjustment of its tilting: pull the adjustment knob [03] until releasing the movement of the table and remove the table.
- Bio-Art does not undertake any liability for any damage caused pursuant to undue use of the Plaster Cutter.

► 9 - REPLACEMENT OF THE ABRASIVE DISK ◀

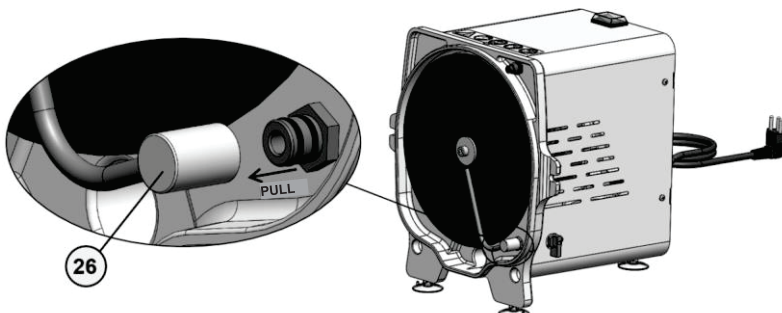
When the abrasive disk [23] is worn or deteriorated, it shall be replaced. For this purpose, always use abrasive disks supplied by Bio-Art, because they are the only capable of assuring maximum quality of the abrasive resin and perfect functioning of the Plaster Cutter.

To perform this operation, proceed as follows:

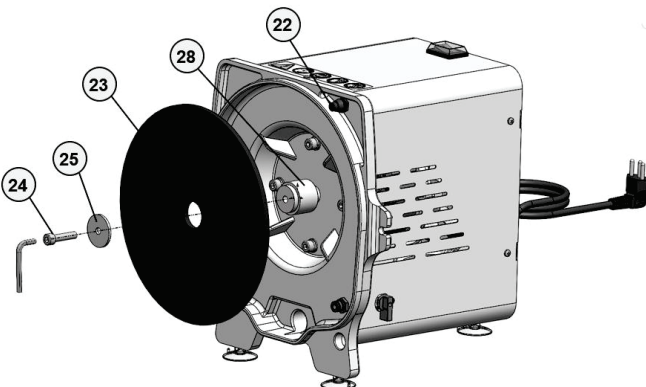
- With the Plaster Cutter off, remove the front lid [01] of the Plaster Cutter unscrewing and loosening the two lid locking knobs [07] located at the sides. The safety switch [22] will impede the motor to work.



- Remove the water irrigation pipe [26] pulling to the outside by its connection, never by the body (rod).



•With the help of Allen wrench 6 mm, loose the screw [24], which fixes the abrasive disk [23] to the motor shaft by means of a washer [25] and a bushing [28].



- Remove the abrasive disk [23] from the bushing [28] and replace with a new one, the same model, tightening the Allen screw [24] well. Observe that the correct side for its fixation is the side, where there is no identification and central metal reinforcement aimed to the outside.
- Place the irrigation pipe [26] again, pushing it to the inside by the connection, never by the body.
- Place the front lid [01] of the Plaster Cutter again, placing and screwing the two side knobs [07] again. Do not use tools for this purpose.

► 10 - REPLACEMENT OF THE PROTECTION FUSE ◀

Use only fuses in accordance with the specification in the table below:

Rated Voltage of the Plaster Cutter	Type of fuse	Fuse value
127 V AC	Delayed action glass fuse, certified	20A/250V
220 V AC	Delayed action glass fuse, certified	10A/250V

- To replace the fuse [12], first, make sure the main switch [06] is in off position and disconnect the power supply cord [10] of the Plaster Cutter from the electric socket.
- In case there is any damage on the power supply cord [10], immediately stop using the Plaster Cutter. Contact the Bio-Art Authorized Technical Assistance, because the repair service shall be provided by specialized personnel.
- Before connecting the Plaster Cutter to an electric socket, make sure the equipment voltage corresponds to the voltage of the electric socket.
- The fuse holder [11] is installed in the lower rear part of the Plaster Cutter.
- Unscrew the lid of the fuse holder [11] by hand (turn in the counterclockwise direction) until it is completely out. The fuse [12] to be replaced is stuck on this lid. Remove it from the lid and throw it away.
- Replace the burnt fuse with another of the same type according to the table above.
- Fit the new fuse [12] on the lid of the fuse holder [11] and screw it by hand (turn in the clockwise direction) until it is fully screwed on the fuse holder [11].
- Reconnect the power supply cord [10] of the Plaster Cutter to the electric socket.
- Turn the main switch [06] of the Plaster Cutter on, in order to make sure that it is functioning correctly.
- If the fuse [12] burns frequently, call the Bio-Art Authorized Technical Assistance.

► 11 - REPLACEMENT OF THE POWER SUPPLY CORD ◀

•In case there is any damage on the power supply cord [10], immediately stop using the Plaster Cutter. Contact the Bio-Art Authorized Technical Assistance, because the repair service shall be provided by specialized personnel.

► 12 - REPLACEMENT OF THE LID SEALING RUBBER ◀

•In case of water leakage pursuant to wear or deformation of the sealing rubber of the Plaster Cutter lid, replace it with a new one. For this purpose, always use lid sealing rubber supplied by Bio-Art, because it is the only one capable of assuring maximum quality of the rubber and perfect functioning of the Plaster Cutter.

•With the Plaster Cutter off, remove its front lid [01] as described in item “Replacement of the abrasive disk”. Replace the sealing rubber [19] fixing it in a way for it to settle uniformly along the entire length and place the front lid [01] again, also as described in item “Replacement of the abrasive disk”.

► 13 - SAFETY PRECAUTIONS ◀

•Always use personal protection equipment (PPE), such as safety goggles, safety gloves and mask against dust. Do not use too loose clothes, such as long sleeves, necklaces, earrings, rings or any kind of accessory, which might snag on the Plaster Cutter disk. Hold your hair or use cap, if you have long hair, as well.

•Always use the automatic system for cleaning the abrasive disk with water.

•Do not allow children or non-qualified people to operate the Plaster Cutter.

•Do not try to operate the Plaster Cutter with its lid open.

•Do not try to operate the Plaster Cutter in another position, but with the four supports correctly positioned on a firm and flat surface.

•Do not leave the Plaster Cutter on without supervision.

•If during the operation of the Plaster Cutter any abnormal noise is observed, switch it off immediately.

•If during the operation of the Plaster Cutter the functioning of its motor is blocked, switch it off immediately and remove the plug from the socket before trying to unblock, forcing its rotation shaft to turn by means of the abrasive disk [23] using your hands.

• Do not use the Plaster Cutter to deburr materials, which might loose particles toxic by inhalation.

•Do not use the Plaster Cutter close to solvents or any other inflammable materials.

•When replacing the abrasive disk [23], check whether the water irrigation pipe [26] is in good conditions and free of dirt.

•During the installation and operation of the Plaster Cutter, observe whether there is no leakage of water.

•Do not use the Plaster Cutter for any other purpose but its intended use.

•Do not try to adjust the working table [02] with the abrasive disk [23] moving.

► 14 - MAINTENANCE AND CLEANING ◀

To assure correct functioning and durability of the Plaster Cutter, the following is highly recommended:

• After use, clean the plaster residues on the working table [02] and the front lid [01].

•Do not use alcohol or any other solvent to clean the Plaster Cutter, nor allow its immersion in any liquid.

•Switch the Plaster Cutter off, if you observe any abnormal noise/vibration or if the motor is blocked.

•Replace the abrasive disk [23] whenever you perceive significant reduction in its performance.

- If necessary, remove the water irrigation pipe [26] of the Plaster Cutter according to item "Replacement of the abrasive disk" and clean it, unclogging its holes by means of a needle.
- In case a lot of residues are accumulated in the basis of the Plaster Cutter, remove the front lid [01] of the Plaster Cutter according to item "Replacement of the abrasive disk", clean it and keep the water and residue outlet unclogged.
- If necessary, clean the filter of the water valve of the Plaster Cutter. For this purpose, unscrew (by rotating in the counterclockwise direction) the water input hose [15] of the water input connection [09]. With the help of nose pliers, remove the plastic filter from the inside, pulling to the outside. Clean well and then, place it again, pushing firmly to the inside. Then, screw (by rotating in the clockwise direction) the water input hose [15] on the water input connection [09]. Do not use tools to screw.

► 15 - SPECIAL STORAGE CONDITIONS ◀

- When not used, keep the Plaster Cutter free of dirt, dry, far from chemical products and sources of excessive heat and direct sun light.
- If you will not use the Plaster Cutter for long periods disconnect it from the socket and close the water valve on the wall.

► 16 - PROBLEMS AND SOLUTIONS ◀

PROBLEM	POSSIBLE CAUSE	SOLUTION / SUGGESTIONS
Plaster Cutter does not switch on	Power supply cord [10] disconnected from the electric socket	Connect the power supply cord to the electric socket
	Circuit breaker of the power supply grid disconnected	Switch the circuit breaker on
	Main switch [06] in the off position	Put the main switch [06] in the on position
	Lack of electric power	Put the main switch [06] in the off position and wait for the power supply to start again
	Protection fuse [12] burnt	Replace the protection fuse [12] as described in the manual
	Safety switch [22] open	Screw the lid locking knobs [07] better for the front lid [01] of the Plaster Cutter to be well tightened to its basis
	Thermal protection of the motor open	Wait for 20 minutes until the motor of the Plaster Cutter cools down. If this this situation repeats frequently, call the Bio-Art Authorized Technical Assistance.
	Motor of the Plaster Cutter showing problem	Contact the Bio-Art Authorized Technical Assistance.

The spout of the Plaster Cutter does not release water or releases insufficient volume of water to wash the abrasive disk.	Main water valve on the wall closed	Open the Main water valve on the wall
	Mini water valve [08] of the Plaster Cutter closed	Open the mini water valve [8] of the Plaster Cutter
	Water input hose [15] of the Plaster Cutter bent or crumpled	Unbend or uncrumple the water input hose [15] of the Plaster Cutter
	Pipe of water irrigation [26] of the Plaster Cutter dirty/clogged	Remove the pipe of water irrigation [26] from the Plaster Cutter and clean it according to instruction in item "Maintenance and cleaning"
	Filter of the water valve dirty or clogged	Clean the filter of the water valve according to instruction in item "Maintenance and cleaning"
	Water valve [9] of the Plaster Cutter showing problem	Contact the Bio-Art Authorized Technical Assistance.
The spout of the Plaster Cutter releases excess of water.	Mini water valve [08] of the Plaster Cutter open too much	Adjust the mini water valve [08] of the Plaster Cutter
Water leaking from the Plaster Cutter	Connection of the water input hose [15] loose	Tighten the connection of the water input hose [15]. Do not use tools for this purpose
	Connection of the water output hose [18] loose	Check the fitting with the connection of the water output hose [18]. Do not use tools for this purpose
	Water output hose [18] bent, crumpled, clogged or its output placed above the level of the work bench	Check the conditions of the water output hose [18] and its installation position
	Excessive pressure/outflow in the water supply line	Adjust the mini water valve [08] of the Plaster Cutter
	Excessive dirt inside the Plaster Cutter basis	Clean the internal part of the Plaster Cutter basis according to item "Maintenance and cleaning"
Loss of performance of the abrasive disk of the Plaster Cutter	Abrasive disk [23] of the Plaster Cutter worn too much	Replace the abrasive disk [23] of the Plaster Cutter according to item "Replacement of the abrasive disk"
	Plaster Cutter model 220 V switched on in electric socket 127 V	Switch the Plaster Cutter at voltage compatible to the model of the product
Excessive noise/ vibration of the Plaster Cutter	Suction cups [04] of the Plaster Cutter are not correctly fixed to the work bench	Clean the suction cups [04], if necessary, and fix them correctly to the work bench
	Screw [24], which fixes the abrasive disk [23] to the motor shaft is not well tightened	Tighten the screw [24], which fixes the abrasive disk [23] to the motor shaft well

► 17 - WARRANTY AND TECHNICAL ASSISTANCE TERM ◀

Bio-Art Equipamentos Odontológicos Ltda. grants warranty of 1 year from the date of acquisition of the product (purchase tax receipt). Warranty is granted by the authorized distributor exclusively and includes manufacturing defects; it is provided upon repair and it is conditioned to the following requirements:

- The product to have been used correctly, according to the instructions described herein;
- The complaint to be accompanied by the purchase tax receipt and registered within the warranty period, followed by a report containing the description of the defect and the serial number or manufacturing batch of the product;
- The equipment to have been handled, transported and stored with care;
- The transport cost (round trip) to be paid by the customer.

The following defects are excluded from the warranty:

- Natural wear of the parts;
- Incorrect use, hits and accidental drop;
- Inadequate transport;
- Repair by non-authorized people;
- Use not in compliance with the characteristics and the purpose of the product;
- Wear by exposure and adverse conditions (moisture, intensive cold or heat);
- Damages due to lack of cleaning or maintenance using inadequate products.

Should you have any doubt, please, ask the manufacturer:

Bio-Art Equipamentos Odontológicos Ltda.

Rua Teotônio Vilela, 120 - Jardim Tangará

CEP 13568-000 - São Carlos - SP – Brazil

Phone: +55 (16) 3371-6502

CNPJ 58.538.372/0001-56 - I.E. 637.034.447.113

Home Page: www.bioart.com.br

Technical Responsible:

Maria Isabel Piccin

CREA/SP 505051

► 18 - AUTHORIZED TECHNICAL ASSISTANCE ◀

For your safety, the technical assistance of this product shall be provided by authorized people/companies. Check the Authorized Technical Assistance centers on our site: www.bioart.com.br



BIO-ART EQUIPAMENTOS ODONTOLÓGICOS LTDA.

📍 Rua Teotônio Vilela, 120 - Jardim
Tangará - CEP 13568-000
São Carlos - SP - Brasil

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