

Ultimate Dental Station

USER MANUAL

Veterinary Mobile Dental Station



Dentalaire Model Numbers

DTP00509

DTP00509-OL

DTP00510



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Before using your DentaLaire Ultimate Dental Station, please read this manual thoroughly to ensure that you know how to operate the features and functions that your new dental station offers safely and effectively.

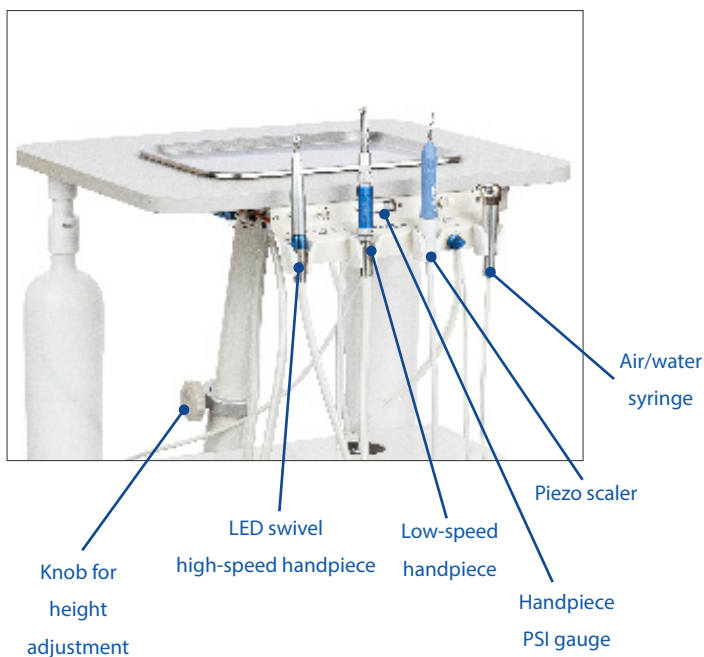
This manual contains installation, operation, and maintenance instructions for the Ultimate Dental Station. Operation should be performed only by veterinarians, veterinary technicians, trained staff, or maintenance service technicians who are experienced in installing and servicing dental stations.

Please note the illustrations of the dental station and its component parts shown in this manual might differ from what you ordered, depending on the model.

Components of Dental Station



DentaLaire Item Number	Name
DTP00509	Ultimate Dental Station with Oil Compressor
DTP00509-OL	Ultimate Dental Station with Oil-less Compressor
DTP00510	Ultimate Dental Station with No Compressor



Maintenance Procedures for Oil Compressor

Follow this guide for maintenance procedures for oil compressors. If you ordered an oil-less compressor, the guide is not needed.

Maintenance Procedure	Daily	Weekly	Monthly	Annually
Drain Tank	X			
Purge Filters		X		
Check Oil Level			X	
Clean Air Intake Filter				X
Change Oil				X
Complete Check of System				X



For oil-less compressor units purchased after **June 2023** no maintenance is required.

If dental station was purchased before **June 2023**, the only maintenance required for oil-less compressor is draining the tank at the end of each day of use. The drain valve is located at the bottom of the compressor.

1.1 Product Description

The Ultimate Dental Station is a mobile dental solution that offers efficiency, a large workspace area, and smooth operation for optimal performance. It is designed to help veterinarians perform efficient dental procedures and cleanings. When in use, the dental station must be at operational height to promote a safe work area.

1.2 Intended Use

The dental machine is intended to be used by trained veterinary dentists and dental technicians. It can help perform dental procedures and cleanings by using the included handpieces and other dental instruments. Its use is intended for veterinary dentistry.

1.3 Main Features

- LED Swivel high-speed handpiece
- Low-speed handpiece
- Piezo Scaler
- Air/Water Syringe
- Large workspace area
- Quick disconnect pressurized water connection
- Standard Midwest 4-hole connection
- 2 - 2 liter water bottle system

2. Important Safety Symbols and Precautions

Please follow all safety instructions in this manual. This manual uses the following safety symbols.



WARNING

Hazards or unsafe practices that may result in **severe personal injury, property damage, etc.**



NOTE

Useful information that helps users understand or benefit from the dental station. These notes are to help users operate dental station.

Please follow instructions carefully.

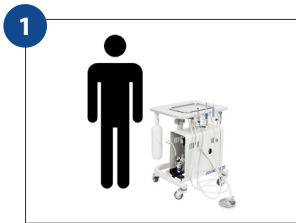
3. Installation

Follow these instructions carefully to ensure the proper installation of this dental station.

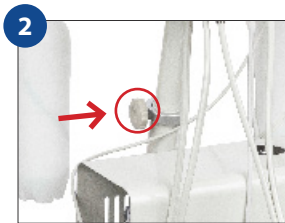
- Use the dental station only for its intended purpose as described in this manual.
- Any servicing should be performed by a qualified technician. Please call DentaIaire at 800-866-6881 or email customerservice@dentalaire.com for any questions and technical support.
- Proper maintenance is required to efficiently operate the dental station.

Step by Step Installation

STEP 1: Raise to operational height.



HOLD TOP.



TURN KNOB COUNTER-CLOCKWISE.



RAISE TO OPERATIONAL HEIGHT AND TURN KNOB CLOCKWISE TO TIGHTEN.



For oil-less compressors, after completing step 1, please skip to **step 4**.

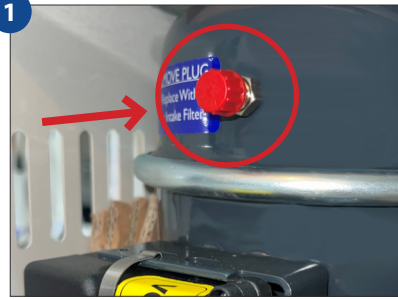
WARNING

1. When operating the dental station, especially in high-traffic areas, please make sure that the dental station is at its operational height. Failure to keep tubing off of the ground is a tripping hazard and will jeopardize workplace safety standards.
2. This dental station should only be lowered if being properly stored in a safe space that does not jeopardize the safety of others.

Installation

STEP 2: Connect air intake filter.

This step is only if you ordered an oil compressor.



REMOVE RED CAP.

This is located on the side of the compressor, opposite of the purge valve.



CONNECT AIR INTAKE FILTER.

This filter is the black mushroom shaped cap. When connecting, the cutout circle on filter should be at the 12:00 position.



SCREW ON AIR INTAKE FILTER.

Screw air intake filter on where the red cap was that was removed in step 1.



Clean air intake filter yearly. The air intake filter's correct position is at 12:00. Placing it at 6:00 can lead to oil leakage.

Installation

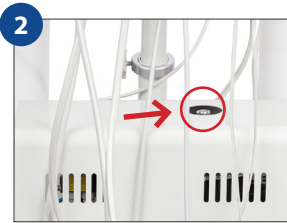
STEP 3: Put oil in compressor.

This step is only if you ordered an oil compressor.



OPEN SYNTHETIC OIL.

Open bottle of synthetic compressor oil.



LOCATE OIL FILL HOLE.

The oil fill hole is located at the top of the compressor.



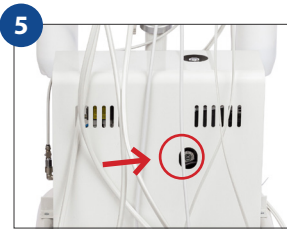
UNSCREW OIL FILL PLUG.

Turn counterclockwise to unscrew oil fill plug.



ADD OIL.

Carefully add oil through fill port. **DO NOT** pour whole bottle of oil at once.



STOP POURING.

Once you see oil through the sight glass, stop pouring oil. Wait 1-2 minutes and check oil level again.



CLOSE OIL PLUG.

Turn oil plug clockwise to install oil plug back onto compressor.



Change oil yearly. **DO NOT** overfill compressor with oil. Ideal oil level is when oil reaches the middle of the sight glass.

OIL CHANGE ON COMPRESSOR

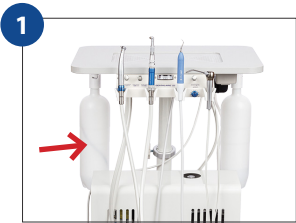
Compressor Type	Operating Pressure Range for Gauges
Oil Compressor	Top: 115-125 PSI ; Bottom: 80 PSI
Oil-less Compressor	Top: 75 PSI ; Side: 100 PSI



Scan to Watch

Installation

STEP 4: Fill water bottles with distilled water.



REMOVE BOTH WATER BOTTLES.

Remove both water bottles off of dental station.



FILL WITH DISTILLED WATER.

Fill both bottles with distilled water leaving about 2 inches of air space at the top.



PUT WATER BOTTLES BACK ON.

Put both water bottles, filled with distilled water, back onto dental station.

Installation

STEP 5: Connect Power.



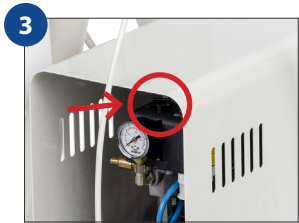
CONNECT POWER CORD.

Connect power cord to 110V grounded receptacle.



TURN SWITCH ON.

Turn switch on power strip to "ON" position.



FIND COMPRESSOR POWER DIAL.

The on/off switch is located behind gauge.



TURN DIAL TO "AUTO"

Turn dial to "AUTO" position.



Please make sure that power cord for dental station is connected to 110 VAC grounded receptacle.

Installation

STEP 6: Unpack handpieces.



UNPACK HANDPIECES.

Remove the high- and low-speed handpiece from their boxes.



LUBRICATE HANDPIECES.

Lubricate high- and low-speed handpiece as instructed in individual product manual.



Lubricate high-speed handpiece right before every dental.



Lubricate low-speed handpiece once a day prior to beginning dental treatments.



WARNING

1. If not properly cleaned and lubricated, abrasives such as finely ground tooth or metal will cause excessive wear and undue vibration.
2. If proper lubrication and maintenance is not done, it can lead to costly repairs.

Installation

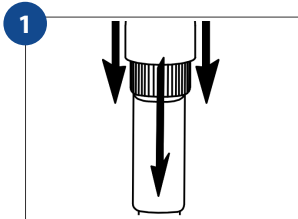
How to Lubricate Handpieces



Shake can of lubricate before applying to handpieces.



DA100JP can be used on DA400LEDMH and DA500A



1 REMOVE HANDPIECE FROM TUBING.

Unscrew handpiece and remove from tubing.



2 LOCATE PORTS.

Locate ports on the bottom of the handpiece.



3 SPRAY LUBRICANT INTO SMALLER PORT.

Spray a generous amount of lubricant into the smaller of the 2 larger ports.

4 CONNECT HANDPIECE BACK ONTO TUBING.

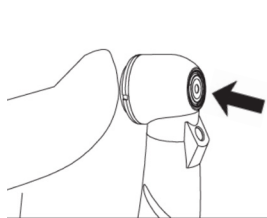
Connect and screw back on handpiece onto tubing.

5 RUN HANDPIECE.

Run handpiece for 20 - 30 seconds. This will help run the lubricant through the motor.

Installation

How to Lubricate Handpieces



To help prevent burs from getting stuck in high-speed handpiece:

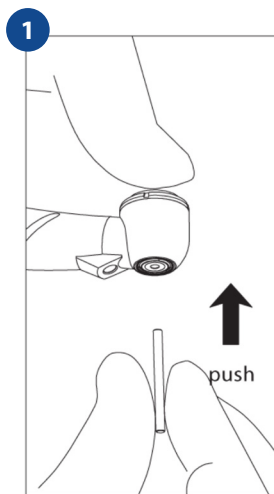
1. Remove bur from handpiece at the end of the day.
2. Spray hole with cleaner lubricant where bur was inserted.
3. Insert clean/new bur into handpiece.

Installation

High-speed Handpiece Operation and Maintenance

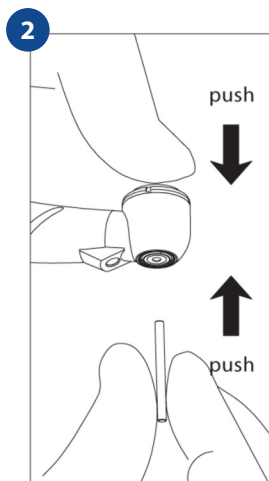
DA400LEDMH

Inserting bur



GENTLY INSERT BUR.

Without pressing end cap button, gently insert bur until it stops.



PRESS END CAP BUTTON.

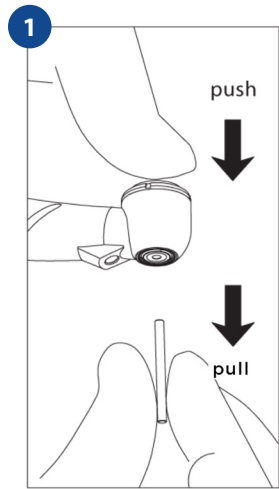
Firmly press end cap button and push bur in until it stops.

WARNING

1. **DO NOT** run the high-speed handpiece without a bur in it. Running handpiece without a bur, will damage the chuck.

Installation

Removing bur



REMOVE BUR.

Firmly press end cap button and pull out bur.

WARNING

- 1. **DO NOT** run the high-speed handpiece without a bur in it. Running handpiece without a bur, will damage the chuck.

Sterilizing high-speed handpiece

- Following your country specific directives, standard and guidelines Steam sterilization class B (pre and post vacuum) with sterilizers in accordance with EN 13060. Sterilization holding time a minimum of 3 minutes at 134°C (273° F).
- Steam sterilization class S with sterilizers in accordance with EN 13060. The sterilizer manufacturer must give the express approval for the sterilization of turbine handpieces. Sterilization holding time a minimum of 3 minutes at 134°C (273° F)

Dentaire Item Number	Operating Pressure
DA400LEDMH	40 - 60 PSI

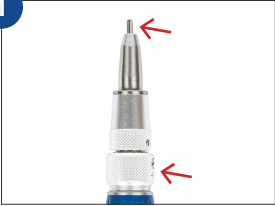
Installation

Low-speed Handpiece Operation and Maintenance

DA500A

Inserting and removing bur or angle attachment


1



REMOVE SHIPPING POST.

Twist locking chuck left to unlock position to remove shipping post.


2



INSERT BUR OR ATTACHMENT.


Carefully insert bur or attachment onto handpiece.

3




TWIST CHUCK LOCKING RING TO RIGHT.

Twist chuck locking ring right to locked position.

 **WARNING**

1. **DO NOT** close the chuck (locked position) unless a bur or angle attachment is installed.

 Refer to page 13 to learn how to lubricate your low-speed handpiece

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Installation

Forward/Reverse Ring



FORWARD ROTATION

Twist rotational control ring index (screw) right to full forward position.

REVERSE ROTATION

Twist rotational control ring index (screw) left to full reverse position.

NO ROTATION

Place rotational control ring index (screw) in between reverse and forward rotation.

Sterilizing low-speed handpiece

- Ensure that the attachment has been removed from the motor.
- Clean the exterior with a damp towel to remove any debris or paste.
- Place handpiece in appropriate sterilization bag, as recommended by sterilizer manufacturer.
- Sterilize by steam autoclave at 135°C (275° F) for 25 minutes.
- Remove the sterilization bag from the sterilizer immediately after cycle is completed and allow the components to cool in the bag.
- Store the components in the sealed sterilization bag until ready for use.

Dentalaire Item Number	Operating Pressure
DA500A	32 PSI

Installation

Step 7: Attach handpieces to dental station.

1



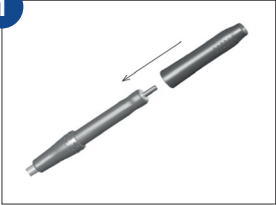
ATTACH TO APPROPRIATE LABEL.

Attach handpieces to the appropriately labeled tubing, located on tubing connectors.

Installation

Step 8: Install Piezo Ultrasonic Scaler.


1



PUT ON BLUE RUBBER SLEEVE.

Slip blue rubber sleeve over handpiece.

2



SCREW ON DESIRED TIP MANUALLY.

Screw tip on finger tight.

3



USE WRENCH TOOL TO TIGHTEN.

Use the provided wrench tool to tighten tip onto scaler.

- ✓ Remove and clean scaler tip daily as instructed in individual product manual.
- ✓ DentaIaire also carries a True Perio Tip for subgingival scaling, which is longer and thinner than the Universal Tip (#39). DTP00786 is the DentaIaire Item number for the Special/Perio Tip #33.
- ✓ Routinely check the scaler tips by using the chart located under the tray. This chart shows expected tip wear.
- ✓ Never leave scaler tip in handpiece overnight.

Installation

Piezo Ultrasonic Scaler Operation and Maintenance

WARNING

1. New tips are not sterile upon delivery. Sterilize before use according to the clinic's routines.
2. A tip that is bent, altered, scratched or worn more than 2mm will lose performance and must be exchanged. Prolonged use may cause tip breakage and injury to patient.
3. The operator should be aware of that ultrasonic instruments with small diameters are subject to breakage at any time. If not used correctly or with too much power or force the instrument will break.
4. Without cooling fluid, the maximum operating time, for the scaler handpiece, is 2 minutes followed by a cooling-down period of 8 minutes. Operating without cooling fluid for more than 2 minutes may cause overheating of the scaler handpiece. After above cycle has been repeated 2 times, the scaler handpiece has to cool down for at least 60 minutes.

HOW TO REMOVE SCALER HANDPIECE



Scan to Watch

Installation

Piezo Ultrasonic Scaler Operation and Maintenance

General Cleaning Procedure

- After each treatment, wipe off the handpiece and the hose with a soft cloth. Use a 45% isopropanol and detergent solution. Then, wash the LM-ErgoGrip, the tip, and the tip wrench and autoclave according to the clinic's routines.
- Autoclave in steam at 134 °C (max 135 °C) for at least 3 minutes.

WARNING

1. Do not sterilize any scaler accessories using dry heat or chemical autoclaves. This may damage the material.
2. Do not keep ultrasonic handpiece soaked in disinfectant. This may damage the handpiece.

Controls for Scaler Water



HOW TO ADJUST SCALER WATER.

To turn scaler water up, turn whit knob left (counterclockwise). To lower, turn knob right (clockwise).

Installation

Controls for Scaler Vibration



TURN BLUE KNOB.

Knob can be turned from 10 - 100 to adjust the intensity of the scaler's vibration.

Controls for Scaler Activation



HOW TO ACTIVATE SCALER.

Smaller button on foot pedal activates the Piezo Scaler.

Installation

Air/Water Syringe Operation and Maintenance

A113-400



LEFT BUTTON

Depress for water only.

RIGHT BUTTON

Depress for air only.

BOTH BUTTONS

Depress for both mist and spray.

4. Operations and Features

Front and Back Located Controls

Most controls for this dental station are located on the front panel and bottle select is located on back on dental station top.

Please refer to the list below to learn about the function of each control.



BOTTLE SELECT

Located on back of dental station top, switch allows user to pick which bottle water comes from.

HP WATER

Knob adjusts how much water sprays at the bur for the high-speed drill. Often referred to as the flow adjustment knob.

HP SELECT HIGH/LOW

Switch selects which handpiece will run when pressing the big button on the foot pedal.

Flip switch to high for the high-speed drill.

Flip switch to low for the low-speed polisher.

SCALER WATER

Knob adjusts how much water comes out of the scaler tip.

BLUE SCALER INTENSITY KNOB

Knob can be turned from 10 - 100 to adjust the intensity of the scaler's vibration.

Normal scaling rarely requires more than 50% power.

Subgingival scaling requires power at 30% or below.

However, hard to remove calculus might require a higher power setting.

PRESSURE GAUGE

Used to measure the pressure for the high- and low-speed handpieces.

5. Troubleshooting

If you encounter a problem with the Ultimate Dental Station, first check the troubleshooting guide and try the suggested solutions.

If none of the suggestions fix your problem, please visit our website at www.dentalaire.com or call Dentalaire Customer Service at 1-800-866-6881 and ask to speak with a technician.

Dentalaire Business Hours: 7:30 am - 4pm PST

Dentalaire Customer Service Number: 1-800-866-6881

Air/Water Syringe

Problem	Possible Causes	Solution
Air/water syringe leaks air or water.	Buttons need to be replaced.	Syringe rebuild kit is needed to replace buttons. Round headed syringe (part #: A113-403).

Compressor

Problem	Possible Causes	Solution
Compressor is overheating.	Compressor or dental machine is leaking air.	Air leak needs to be fixed.
	Pressures are out of adjustment.	Properly adjust regulator and handpieces.
	Air filter issue.	Air filter (part #: C1794) needs to be cleaned or replaced.
	Compressor is low on oil.	Add oil (part #: DTP11310).
Compressor turns on but nothing works.	Main air line near lower pressure gauge is not plugged into compressor.	Plug main air line into compressor.

Troubleshooting

Scaler

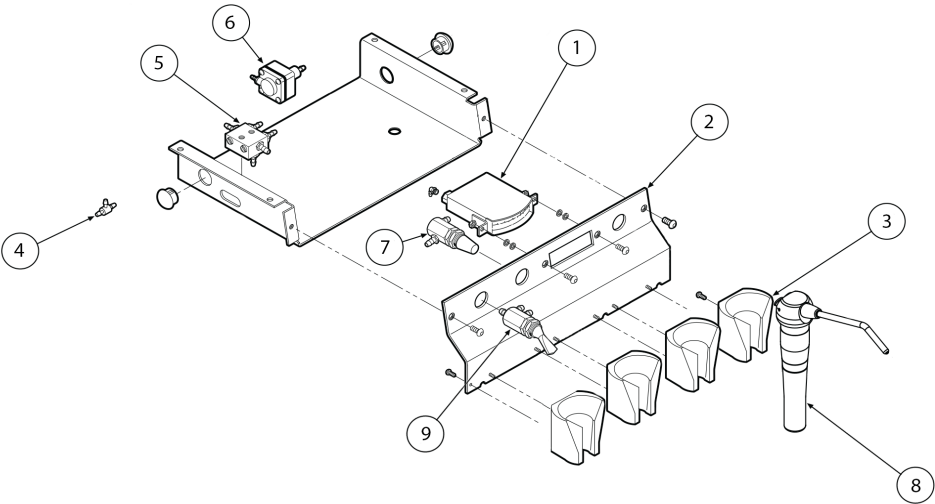
Problem	Possible Causes	Solution
Scaler leaks water when not in use.	Water relay is damaged.	Replace water relay with part A23-001
Scaler pulsates instead of vibrating.	Tip is not wrench tight.	Use scaler wrench tool to tighten tip (part #: A526-7941).

Handpiece

Problem	Possible Causes	Solution
Drill leaks water when not in use.	Water relay is damaged.	Replace water relay (part #: A23-000).
While using drill, water leaks from machine.	Drill does not have a good seal to the tubing connection.	Check gasket on handpiece and make sure drill is tight on tubing connection.
Polisher has air, but is not working.	Chuck is not in locked position.	Twist chuck locking releasing ring to the right to locked position. (See low-speed installation on how to lock ring).
	Forward/reverse ring at bottom of handpiece is not in forward position.	Twist rotational control ring index (screw) right to full forward position. (See low-speed installation on how to put control ring index into forward position).
No water to any handpieces.	Water filter is clogged.	Remove water bottle and filter at end of blue tubing, to see if that resolves the issue. If water is restored, water filter is clogged and needs to be replaced with part A10-1597.

6. Parts by Diagram

Handpiece Control for Ultimate Dental Station



ITEM	PART DESCRIPTION	DENTALAIRE PART NUMBER	ITEM	PART DESCRIPTION	DENTALAIRE PART NUMBER
1	Rectangular Gauge	A026-001	5	HP Adjustment Block Horizontal Mount	A113-021
2	Face Plate for J-5201	A101-011	6	Water Relay - Drill	A23-000
3	Standard H/P Holder	A141-006	7	Needle Flow Valve with Knob	A121-009
4	Shuttle Valve	A014-012	8	Three Way Syringe	A113-400
			9	Routing Switch	A014-006

7. Limited Warranty

Ultimate Dental Station

Dentalaire warrants its products to be free from defects in materials and workmanship only. No other warranties are expressed or implied.

Air Compressors and Portable Units

All compressors and portable dental units including wall-mounted and countertop units are warranted for one (1) year with the exception of:

- Prestige Dental Station (2 years)
- Diplomate Dental Station (2 years)

Miscellaneous Products

- Service Parts (3 months)

Instruments

- Dentalaire and VetCare instruments (1 year)

If any of our instruments break, chip, or bend during any dental procedure, Dentalaire will replace the instruments at no charge. Defective item(s) must be returned to us for exchange.

Handpieces and Accessories on Dental Stations

Proof of invoice is required and defective scaler tips are to be sent back:

- High-speed handpiece (1 year)
- High-speed turbine (3 months)
- Low-speed handpiece (1 year)
- True Seal prophyl angles (1 year)
- Economy prophyl angles (3 months)
- Scaler tips (3 months)
- LM Piezo Ultrasonic Scaler handpiece (1 year)
- Metal Piezo Handpiece (1 year)

All other prophyl angles and tips are not applied. Warranty is limited repair, parts, or replacement of item by Dentalaire. All other warranties are described in the individual product description.

Terms and Conditions

Terms of payment will be established by results of credit report/references. Once credit terms are established, invoices will reflect terms extended by Dentalaire:

- | | |
|--|-------------------------|
| • Order placement/information to include | • Product Description |
| • Invoice to/Ship to information | • Quantity |
| • Purchase Order Number | • Desired Shipping Date |
| • Product Number | • Method of Shipment |

Note: Opened handpieces and equipment may not be returned for credit, but will be repaired or replaced in accordance with manufacturer warranties. All warranty items, anything after 90 days, customer is responsible for the freight. Please inspect all packages carefully prior to opening.

Returns

All items must be returned within 30 days of purchase in like new condition with all original packaging. A 25% restocking fee will apply to all returns.

Returns will be inspected before a credit is issued. Items cannot be returned after 30 days.

Disclaimer

THE ABOVE WARRANTIES ARE VOID IF ITEMS ARE CARELESSLY USED, IMPROPERLY INSTALLED, IMPROPERLY STERILIZED, AND/OR MISUSED. NO CLAIM FOR LABOR OR CONSEQUENTIAL DAMAGES WILL BE ALLOWED. SHIPPING IS THE RESPONSIBILITY OF THE CUSTOMER. ANY DISCREPANCIES IN YOUR ORDER MUST BE REPORTED WITHIN 10 DAYS OF RECEIPT OF THE ORDER.

If you have any questions relating to Dentalaire products, please contact Dentalaire.

Dentalaire Business Hours: 7:30 am - 4pm PST

Dentalaire Customer Service Number: 1-800-866-6881



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