

PALISADES DENTAL



HIGH SPEED HANDPIECE

*Care and Use
of the Impact Air 45[®]
Push Button (Model 9)
High Speed Handpiece*

www.palisadesdental-llc.com

FOR PROFESSIONAL USE ONLY

THE IMPACT AIR 45® HIGH SPEED HANDPIECE IS A PRESCRIPTION DEVICE AND IS INTENDED FOR USE ONLY BY LICENSED DENTAL PRACTITIONERS.

BEFORE OPERATING HANDPIECE, CAREFULLY READ AND FOLLOW THESE INSTRUCTIONS. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE. OBSERVE ALL CAUTIONS AND WARNINGS DURING USE.

CAUTION:

FEDERAL LAW RESTRICTS THE DEVICE TO SALE BY OR ON THE ORDER OF A LICENSED DENTIST.

WARNING:

UNDER NORMAL OPERATING CONDITIONS, AIR IS RELEASED FROM THE BACK OF THE HEAD OF THIS HANDPIECE. IF THIS AIR IS DIRECTED INTO AN OPEN SOFT TISSUE WOUND OR BENEATH THE MUCOSA OR DERMIS, INJURY TO THE PATIENT COULD RESULT FROM AIR EMPHYSEMA OR AIR EMBOLISM.

- When using this handpiece, do not turn it so that the back of the head is directed toward a tissue flap.
- The Impact Air 45® is designed to prevent the release of air from the front of the device head (i.e., onto the bur). Prior to each use, the handpiece should be evaluated to ensure that it is operating correctly. The instructions in this booklet should be followed carefully.

CAUTION:

This handpiece must be sterilized prior to initial use. Please follow instructions listed in **Section 4 - Sterilization** of this booklet. The Food and Drug Administration (FDA) strongly recommends that handpieces be re-sterilized after each patient use.

BEFORE OPERATING THE HANDPIECE, CAREFULLY READ AND FOLLOW ALL OF THESE INSTRUCTIONS. SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE. TO MINIMIZE RISK OF SERIOUS INJURY, OBSERVE ALL WARNINGS AND CAUTIONS.

The Impact Air 45® High Speed Handpiece is an air-powered dental handpiece intended for use in procedures such as: apicoectomy (root canal drainage), osteoplasty (bone contouring), root resection, and other Endodontic and Periodontal procedures for which a conventional handpiece would be used.

Your new handpiece is a high-precision, ultra-high-speed instrument, and in order to obtain the fine service it can deliver, some specific procedures must be followed.

System Requirements

1. Air/Water Requirements

The Impact Air 45® handpiece should always have dry filtered air or nitrogen and filtered water supplies. Periodically check and maintain your air filter and dryer to ensure a steady supply of clean, moisture-free air. This may prolong the life of the bearings.

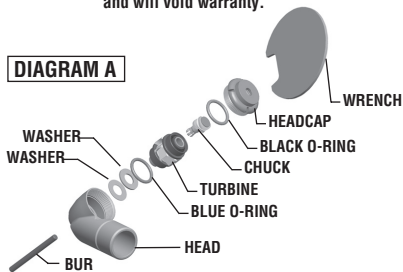
2. Pressure

The recommended drive air pressure for the Impact Air 45® handpiece is between 32 p.s.i. and 40 p.s.i. Proper drive air pressure is essential for optimal handpiece performance. **NEVER OPERATE** this handpiece at **HIGHER PRESSURE** than the maximum 40 p.s.i. recommended. Doing so may shorten the life of the bearings and will void warranty.

3. Cleaning

NEVER immerse or soak handpiece and/or turbine in water-based cleaner, chemical disinfectant, ultrasonic cleaner, or cold sterilization solution.

Failure to follow these cleaning procedures may lead to premature turbine failure and will void warranty.



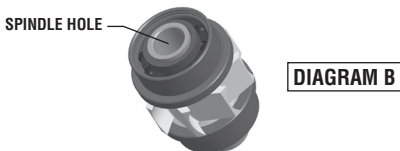
After each use, the handpiece should be cleaned as follows:

- a. *To clean the Exterior of the Handpiece:*
 - Wipe with damp sponge or brush to remove debris.
- b. *To disassemble and clean the Interior of the Head:*
 - Make sure a bur is in place prior to disassembly.
 - Fit the head cap wrench, provided with the handpiece, into the slots of the head cap. Turn the wrench counter-clockwise to loosen and unscrew the headcap.
 - Remove turbine from head. If turbine stays with head cap, separate these two parts with a gentle pull.
 - If turbine does not come out with head cap removal, push turbine out through the rear, using the bur.
 - INSPECT interior of head carefully to ensure that all turbine components, such as the two washers and the front, blue O-ring, have been removed. Clean interior of the head with Isopropyl Alcohol (I.P.A.) using a bristle brush and/or swab. DISCARD AND REPLACE any O-rings that are hardened, no longer supple, or that allow loose movement of the turbine in the head or head cap, or vibration during running. DISCARD AND REPLACE any washers that are worn. After cleaning, ensure that the interior of the head is dry, clean and free of debris.
- c. *To clean the Head Cap:*
 - Prior to cleaning, inspect the head cap to ensure that the turbine's rear, black O-ring has been removed. If it is present, carefully remove the O-ring. Using I.P.A. with a bristle brush and/or swab, clean the head cap. Ensure that the head cap is clean and dry.
- d. *To clean the Turbine:*
 - Hold the turbine by the bur.
 - Gently clean all exterior surfaces of the turbine using I.P.A. and a bristle brush.
- e. *To clean the Chuck:*
 - Place turbine – chuck side down – against a hard flat surface. Grip the turbine and push down against the surface, then remove the bur.
 - Grasp the back of the chuck in front of the stack of small, curved spring washers and remove the chuck from the turbine (refer to

Diagram B). Gently clean the exterior of the chuck with I.P.A. and a small bristle brush. Gently clean the interior of the chuck with I.P.A. and a pipe cleaner.

f. *To clean the Spindle:*

- Insert a pipe cleaner dampened with I.P.A. into the spindle hole as far as possible and twist (refer to Diagram B).
- Remove pipe cleaner from spindle and wipe debris from, or trim, pipe cleaner. Repeat until pipe cleaner comes out clean.



Reassembly after Cleaning (refer to Diagram A):

- Re-install the chuck into the spindle.
- Insert the bur back into turbine by placing the turbine – chuck side down – against a hard, flat surface. Insert a bur into the spindle hole as far as it will go. Grip turbine, push down against the surface, and slide the bur in completely.
- Apply one drop of Impact Air 45[®] Autoclavable Lubricant to each of the bearings.
- Slide the rear, black O-ring onto the rear bearing.
- Slide the front, blue O-ring onto the front bearing (bur end).
- Slide the two washers, in either order, onto the bur end of the turbine, flush against the front bearing.
- Lubricate the head cavity with Impact Air 45[®] Autoclavable Lubricant.
- While holding the turbine with the bur end facing upward, carefully insert the turbine assembly completely into the head with gentle pressure.
- Push turbine into the interior of the head using the bur to guide it into the center of the hole. As the turbine begins to seat, apply firm pressure with a wobbling motion to seat the front, blue O-ring. The end of the rear bearing should be flush with the open end of the head chamber.
- Using your fingers, carefully screw the head cap back onto the rear

of the head and tighten with the head cap wrench. Do not force the head cap. If resistance is experienced, refer to the troubleshooting section of this booklet.

WARNING:

BE SURE TO TIGHTEN HEAD CAP SECURELY WITH HEAD CAP WRENCH SO IT DOES NOT LOOSEN DURING OPERATION. OPERATING HANDPIECE WITH LOOSE HEAD CAP COULD CAUSE PERSONAL INJURY.

- After cleaning, proceed with sterilizing the handpiece in accordance with the instructions listed in **Section 4 - Sterilization** below.

4. Sterilization

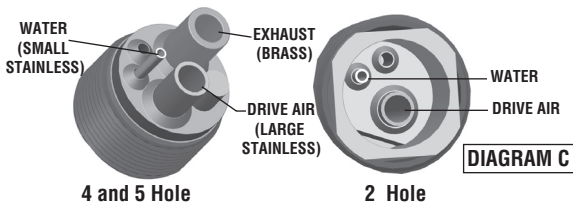
- Follow cleaning instructions listed in **Section 3 - Cleaning** prior to sterilizing handpiece. The handpiece could be damaged if it is not properly cleaned and lubricated before autoclaving.
- A wrapped handpiece should be steam sterilized as follows:
 - **Gravity Displacement sterilizer:**
 - At a minimum of 250°F(121°C) for a minimum exposure time of 30 minutes and a minimum drying time of 15-30 minutes; or
 - At a minimum of 270°F(132°C) for a minimum exposure time of 15 minutes and a minimum drying time of 15-30 minutes; or
 - At a maximum of 275°F(135°C) for a minimum exposure time of 10 minutes and a minimum drying time of 30 minutes.
 - *Do not exceed 275°F(135°C).*
 - **Dynamic Air Removal sterilizer:**
 - At a minimum of 270°F(132°C) for a minimum exposure time of 4 minutes and a minimum drying time of 20-30 minutes; or
 - At a minimum of 273°F(134°C) for a minimum exposure time of 10 minutes and a minimum drying time of 60 minutes; or
 - At a maximum of 275°F(135°C) for a minimum exposure time of 3 minutes and a minimum drying time of 16 minutes.
 - *Do not exceed 275°F(135°C).*
- DO NOT AUTOCLAVE with bur in chuck.
- Do not use a chemical or cold sterilization process.
- Do not exceed the sterilizer manufacturer's guidelines for load capacity.
- Always use complete dry cycle of sterilizer in accordance with sterilizer manufacturer's instructions.
- Always allow product to cool in bag to room temperature prior to using.
- Contact your sterilizer manufacturer if moisture remains inside bag and on product after drying.

5. Lubrication

The Impact Air 45® handpiece should be properly lubricated ***BEFORE*** each standard autoclaving cycle with Impact Air 45® Autoclavable Lubricant. Proper lubrication is the most critical factor in handpiece bearing life. For maximum bearing life, use only Impact Air 45® Autoclavable Lubricant.

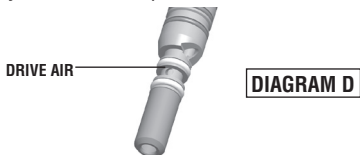
To Lubricate a 2 Hole, 4 Hole, or 5 Hole Fiberoptic Handpiece:

- Remove handpiece from hose coupling and insert tip of Impact Air 45® Autoclavable Lubricant into drive air hole. (refer to Diagram C). Inject 2 drops of lubricant and reconnect with hose coupling. Run handpiece approximately 5 seconds to disperse lubricant.



To Lubricate an Optic and Non-Optic Quick Disconnect Handpiece:

- Remove handpiece from hose coupling and insert tip of Impact Air 45® Autoclavable Lubricant into drive air hole of the coupler (refer to Diagram D). Inject 2 drops of lubricant into the drive air hole of the coupler and connect Quick Disconnect handpiece and coupler. Run handpiece approximately 5 seconds to disperse lubricant.



All Impact Air 45® handpieces should be lubricated *BEFORE*** autoclaving for maximum turbine life.**

6. Burs

USE COMPATIBLE BURS:

The Impact Air 45® handpiece is intended for use with friction-grip burs, including surgical length burs up to 25mm in length, that conform to I.S.O. and A.D.A. shank diameter standards (.0625 - .0630 in./1.59-1.60 mm).

USE OF INCOMPATIBLE BURS may damage push-button chuck or other parts, and result in bur slippage. The following burs are incompatible with an Impact Air 45® handpiece:

- Burs not made to (or worn beyond) I.S.O. and A.D.A. shank standards (.0625 - .0630 in./1.59 - 1.60mm)
- Burs with carbide shanks
- #8 or larger round burs
- Burs with identifying grooves located from 4mm to 6mm from non-cutting end of bur

CAUTION:

- Burs may break or dislodge from the handpiece with great velocity. Operator eye protection is strongly recommended. Never attempt to extend the bur from the chuck. Do not use burs that produce excessive noise or increased vibration. This may indicate that the bur is not securely in place or that the bur is bent. Never force a bent, rusted or oversized bur into the chuck or damage may occur, voiding warranty.
- Fully seat bur completely into the chuck before use. Always tug on the bur, after the chuck is loaded, to confirm that the bur is securely in place. A bur which comes out inside the oral cavity could cause personal injury.

Be sure to remove the bur after each use. DO NOT AUTOCLAVE handpiece with bur in chuck.

Sterilize burs in accordance with the bur manufacturer's instructions prior to use. Do not re-use corroded, worn or damaged burs.

7. Operation

- When attaching a standard handpiece to the coupling, be sure that all tubes are fully inserted with the gasket flush to the connector and maintained in position prior to tightening the coupler sleeve/nut onto the handpiece.
- A Quick Disconnect handpiece is designed to connect to one of our Quick Disconnect Couplers, Item #627, #628, and #629. The Quick Disconnect handpiece is designed to also fit the KaVo Multiflex coupler (*KaVo is a registered trademark of KaVo Dental GmbH, Biberach, Germany*). Insert the Quick Disconnect handpiece onto the appropriate Quick Disconnect Coupler until it snaps securely into place.
- NEVER force a handpiece onto an incompatible coupler.
- NEVER depress the head cap button (the chuck release) while the handpiece is running.
- Do not use the handpiece if an air leak is detected from the front (bur end) of the head.
- NEVER operate the handpiece without an adequate water or saline supply at the cutting site as cutting and cooling efficiency will be reduced.
- NEVER operate the handpiece without an adequate partition in the throat, or dental dam, to prevent ingestion or aspiration of dental materials.

TO CHANGE BUR:

- To remove a bur: Press the head cap button (the chuck release) firmly and withdraw bur from spindle.
- To insert a bur: Slide bur in as far as it will go (approximately halfway), then press the head cap button (the chuck release) firmly and slide bur in the rest of the way.
- Test the bur for security by tugging the bur with your fingers.

8. To Change the Turbine (refer to Diagram A):

- Make sure a bur is in place prior to disassembly.
- Fit the head cap wrench, provided with the handpiece, into the slots of the head cap. Turn the wrench counter-clockwise to loosen and unscrew the head cap.
- Remove turbine from head. If turbine stays with head cap, separate these two parts with a gentle pull.
- If turbine does not come out with head cap removal, push turbine out through the rear, using the bur.

- INSPECT interior of head carefully to ensure that all turbine components, such as the two washers and the front, blue O-ring, have been removed. Clean interior of the head with Isopropyl Alcohol (I.P.A.) using a bristle brush and/or swab. After cleaning, ensure that the interior of the head is dry, clean and free of debris.
- Clean the Head Cap*: Prior to cleaning, inspect the head cap to ensure that the turbine's rear, black O-ring has been removed. If it is present, carefully remove the O-ring. Using I.P.A. with a bristle brush and/or swab, clean the head cap. Ensure that the head cap is clean and dry.
- Remove the turbine, the two washers, and the two O-rings from the Turbine Kit bag.
- Apply one drop of Impact Air 45® Autoclavable Lubricant to each of the bearings of the new turbine.
- Slide the rear, black O-ring onto the rear bearing.
- Slide the front, blue O-ring onto the front bearing (bur end).
- Slide the two washers, in either order, onto the bur end of the turbine, flush against the front bearing.
- Lubricate the head cavity with Impact Air 45® Autoclavable Lubricant.
- While holding the turbine with the bur end facing upward, carefully insert the turbine assembly completely into the head with gentle pressure.
- Push turbine into the interior of the head using the bur to guide it into the center of the hole. As the turbine begins to seat, apply firm pressure with a wobbling motion to seat the front, blue O-ring. The end of the rear bearing should be flush with the open end of the head chamber.
- Using your fingers, carefully screw the head cap back onto the rear of the head and tighten with the head cap wrench. Do not force the head cap. If resistance is experienced, connect handpiece to your air source. Thread the head cap on approximately half way. Feed air through the handpiece, being careful to maintain a grip on the cap. Tighten the cap while handpiece is running. If the turbine slows, manipulate the cap back and forth to increase the speed. Continue this process until head cap is snug and tighten completely with head cap wrench.

WARNING:

BE SURE TO TIGHTEN HEAD CAP SECURELY WITH HEAD CAP WRENCH SO IT DOES NOT LOOSEN DURING OPERATION. OPERATING HANDPIECE WITH LOOSE HEAD CAP COULD CAUSE PERSONAL INJURY.

- After installation, proceed with sterilizing the handpiece in accordance with the instructions listed in **Section 4 - Sterilization** of this booklet.

9. To Replace the Chuck (refer to Diagrams A & B):

- Make sure a bur is in place prior to disassembly.
- Fit the head cap wrench, provided with the handpiece, into the slots of the head cap. Turn the wrench counter-clockwise to loosen and unscrew the head cap.
- Remove turbine from head. If turbine stays with head cap, separate these two parts with a gentle pull.
- If turbine does not come out with head cap removal, push turbine out through the rear, using the bur.
- INSPECT interior of head carefully to ensure that all turbine components, such as the two washers and the front, blue O-ring, have been removed. Clean interior of the head with Isopropyl Alcohol (I.P.A.) using a bristle brush and/or swab. After cleaning, ensure that the interior of the head is dry, clean and free of debris.
- Clean the Head Cap*: Prior to cleaning, inspect the head cap to ensure that the turbine's rear, black O-ring has been removed. If it is present, carefully remove the O-ring. Using I.P.A. with a bristle brush and/or swab, clean the head cap. Ensure that the head cap is clean and dry.
- Place turbine – chuck side down – against a hard flat surface. Grip the turbine and push down against the surface, then remove the bur.
- Grasp the back of the chuck in front of the stack of small, curved spring washers and remove the chuck from the turbine (refer to Diagram A).
- Clean the Spindle*: Insert a pipe cleaner dampened with I.P.A. into the spindle hole as far as possible and twist (refer to Diagram B).
- Remove pipe cleaner from spindle and wipe debris from, or trim, pipe cleaner. Repeat until pipe cleaner comes out clean.

- Remove new chuck from package, being careful not to remove or reposition curved spring washers. Insert end of new chuck into turbine cartridge and push with finger until fully inserted.
- Insert the bur back into turbine by placing the turbine – chuck side down – against a hard, flat surface. Insert a bur into the spindle hole as far as it will go. Grip turbine, push down against the surface, and slide the bur in completely.
- Apply one drop of Impact Air 45® Autoclavable Lubricant to each of the bearings.
- Slide the rear, black O-ring onto the rear bearing.
- Slide the front, blue O-ring onto the front bearing (bur end).
- Slide the two washers, in either order, onto the bur end of the turbine, flush against the front bearing.
- Lubricate the head cavity with Impact Air 45® Autoclavable Lubricant.
- While holding the turbine with the bur end facing upward, carefully insert the turbine assembly completely into the head with gentle pressure.
- Push turbine into the interior of the head using the bur to guide it into the center of the hole. As the turbine begins to seat, apply firm pressure with a wobbling motion to seat the front, blue O-ring. The end of the rear bearing should be flush with the open end of the head chamber.
- Using your fingers, carefully screw the head cap back onto the rear of the head and tighten with the head cap wrench. Do not force the head cap. If resistance is experienced, connect handpiece to your air source. Thread the head cap on approximately half way. Feed air through the handpiece, being careful to maintain a grip on the cap. Tighten the cap while handpiece is running. If the turbine slows, manipulate the cap back and forth to increase the speed. Continue this process until head cap is snug and tighten completely with head cap wrench.

WARNING:

BE SURE TO TIGHTEN HEAD CAP SECURELY WITH HEAD CAP WRENCH SO IT DOES NOT LOOSEN DURING OPERATION. OPERATING HANDPIECE WITH LOOSE HEAD CAP COULD CAUSE PERSONAL INJURY.

- After installation, proceed with sterilizing the handpiece in accordance with the instructions listed in **Section 4 - Sterilization** of this booklet.

10. Servicing

Do not attempt to repair a handpiece yourself except to replace the turbine, chuck, washers, O-rings, or gasket. Replace these parts periodically or when they wear out, with Palisades Dental parts ONLY, as described in these instructions.

If your handpiece requires service, maintenance or repair, send to Palisades Dental ONLY for evaluation at the address on the back of this booklet. DO NOT SEND TO OTHER CENTERS. IMPACT AIR 45® HIGH SPEED HANDPIECES REQUIRE PALISADES DENTAL PARTS ONLY.

Please complete the repair card enclosed with these instructions (additional copies can be downloaded from our website at: www.palisadesdental-llc.com).

Troubleshooting

<i>Problem</i>	<i>Possible Reason/Solution</i>
Chuck does not hold bur	<ul style="list-style-type: none">•Chuck and/or Spindle may be dirty. Follow cleaning instructions listed in Section 3 – Cleaning of this booklet.•Use of incompatible bur. Use only compatible burs (refer to Section 6 - Burs of this booklet).•Chuck may be worn or broken. Replace chuck.•Spindle may be damaged. Send handpiece to Palisades Dental ONLY for service.•Never use a chuck which does not have enough grip; a bur could come out in the patient's mouth and cause personal injury. Stop using the handpiece immediately and send it to Palisades Dental ONLY for service.
Bur/Turbine does not spin	<ul style="list-style-type: none">•Turbine may be dirty. Follow cleaning instructions listed in Section 3 - Cleaning of this booklet.•Bur may not be engaged. Engage bur (refer to the instructions listed in Section 7 - Operation of this booklet).•Handpiece may not be properly connected. Ensure proper connection.•Rear gasket may be worn or missing. Replace or install gasket.

Cont'd. on next page

Bur/Turbine does not spin (cont'd.)	<ul style="list-style-type: none"> •If bur is fully engaged and the bur/turbine still does not spin, return the handpiece to Palisades Dental ONLY for service.
Handpiece runs too slow	<ul style="list-style-type: none"> •Handpiece may need to be cleaned. Follow cleaning instructions listed in Section 3 - Cleaning of this booklet. •Air pressure may be too low. Increase air pressure, not to exceed 40 p.s.i. •Pinched O-ring. Replace the pinched O-ring. •Bearings may be worn. Replace turbine. •If the handpiece continues to run slow, send to Palisades Dental ONLY for service.
Head Cap will not tighten	<ul style="list-style-type: none"> •Handpiece may need to be cleaned. Follow cleaning instructions listed in Section 3 - Cleaning of this booklet. •There may be an extra O-ring in head cap. Remove the extra O-ring. •There may be extra washers or an extra blue (front) O-ring in the head cavity. Remove extra washer(s) and/or extra O-ring(s). •Turbine may not be properly seated in head. Reposition turbine per the instructions listed in Section 8 – To Change the Turbine of this booklet. •Head Cap threads may be cross-threaded. Realign threads and tighten head cap. •If head cap will not tighten, send your handpiece to Palisades Dental ONLY for service.
Air Leak Detected	<ul style="list-style-type: none"> •Handpiece may need to be cleaned. Follow cleaning instructions listed in Section 3 - Cleaning of this booklet. •Hose connection may not be tightened completely. Tighten hose connection. •Rear gasket may be worn or missing. Replace gasket (refer to Diagram A for proper location). •Head cap may be loose. Use cap wrench to tighten head cap completely. •Washers may be worn. Replace washers (refer to Diagram A for proper location). •O-rings may be worn. Replace O-rings (refer to Diagram A for proper location). <p style="text-align: right;"><i>Cont'd. on next page</i></p>

Air Leak Detected (cont'd.)	<ul style="list-style-type: none"> •Bearings may be worn or blown. Replace Turbine or return the handpiece to Palisades Dental ONLY for service. •If the air leak persists after replacing the above listed parts and tightening the connections, return the handpiece to Palisades Dental ONLY for service.
Water Stream is weak or absent	<ul style="list-style-type: none"> •Waterline may be obstructed. Carefully clear blockage using an endofile or a ligature wire. •Water reservoir pressure may be set too low. Increase water reservoir pressure. •Waterline is damaged. Send handpiece to Palisades Dental ONLY for service.
<p>Water stream is not directed at tip of bur</p> <p><i>CAUTION: Attempting to re-aim the water stream yourself could result in permanent damage to the waterline.</i></p>	<ul style="list-style-type: none"> •Waterline is partially obstructed. Carefully clear blockage using an endofile or a ligature wire. •Waterline is damaged. Send handpiece to Palisades Dental ONLY for service. •Bur length is incorrect. Use only surgical length burs. •Incompatible Bur. Refer to Section 6 - Burs for a listing of compatible and incompatible burs.
Turbine does not run after cleaning/re-installation	<ul style="list-style-type: none"> •There may be an extra O-ring in head cap. Remove the extra O-ring. •There may be extra washers or an extra blue (front) O-ring in the head cavity. Remove extra washer(s) and/or extra O-ring(s). •Turbine may not be properly seated in head. Reposition turbine per the instructions listed in Section 8 – To Change the Turbine of this booklet. •Head Cap threads may be cross-threaded. Realign threads and tighten head cap. <p style="text-align: center;">WARNING: BE SURE TO TIGHTEN HEAD CAP SECURELY WITH HEAD CAP WRENCH SO IT DOES NOT LOOSEN DURING OPERATION. OPERATING HANDPIECE WITH LOOSE HEAD CAP COULD CAUSE PERSONAL INJURY.</p> <ul style="list-style-type: none"> •If turbine does not run after cleaning/re-installation send handpiece to Palisades Dental ONLY for service.

<i>Excessive Noise, Chatter or Vibration</i>	<ul style="list-style-type: none"> •If the handpiece emits irregular or excessive noise, chatter or vibration, cease using immediately and return it to Palisades Dental ONLY for service.
<i>For Fiberoptic Models: No light output</i>	<ul style="list-style-type: none"> •Ensure handpiece is connected to a compatible fiberoptic coupler. •Check to make sure power source at the base of the hose is “on”. •Bulb or light module may need to be replaced. •Light ferrules may be damaged. Send handpiece to Palisades Dental ONLY for service.
<p><i>Water leak at coupler</i> <i>a.For 2 Hole, 4 Hole, and Fiberoptic Models:</i></p> <p><i>b.For 407 and 408 Quick Disconnect Models:</i></p>	<ul style="list-style-type: none"> •Gasket may be worn. Replace gasket. •Coupler connection may not be tightened completely. Tighten connection. •Handpiece and Hose may not be threaded tightly enough. Align and tighten connections. •Coupler O-rings may be worn. Replace O-rings. •Coupler may not be completely inserted into the handpiece. Make sure the coupler is fully inserted. •Coupler and Hose may not be threaded tightly enough. Align and tighten connections.

If your problem cannot be resolved using the Troubleshooting tips, send your handpiece to Palisades Dental ONLY for service at the address listed on the back of this booklet. DO NOT SEND TO OTHER CENTERS. IMPACT AIR 45® HIGH SPEED HANDPIECES REQUIRE PALISADES DENTAL PARTS ONLY.

Instructions for shipping your Impact Air 45® handpiece for service, maintenance or repair:

If your handpiece requires service, maintenance, or repair, send to Palisades Dental ONLY. We will provide you with a free estimate after evaluation. DO NOT SEND TO OTHER CENTERS. IMPACT AIR 45® HIGH SPEED HANDPIECES REQUIRE PALISADES DENTAL PARTS ONLY.

- Autoclave your handpiece prior to shipping.
- Send it to be serviced via your most convenient carrier directly to Palisades Dental at the address listed on the back of this booklet. Make sure that you insure it. Always pack the product in a box, never in an envelope.

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- Please complete the repair card enclosed with these instructions (additional copies can be downloaded from our website at: www.palisadesdental-llc.com), or include a note, with a brief description of the problem you are having, as well as your return address and phone number.

11.Parts and Accessories

WE RECOMMEND having a bottle of Impact Air 45® Autoclavable Lubricant, as well as replacement turbine parts on hand, to reduce downtime in your office.

Replacement Parts:

- 603 Turbine
- 608 Chuck
- 614 Head Cap
- 619 Gasket for a 2 (3) Hole
- 620 Gasket for a 4 Hole
Handpiece or 628 Coupler
- 621 Gasket for a Fiberoptic/5 Hole
Handpiece or 629 Coupler
- 622 O-Rings
- 623 Washers
- 626 Lamp Module for Adapter
- 630 Replacement Coupler O-Rings
- 631 Replacement Coupler Bulb for
Fiberoptic Model
- 632 Replacement 6 Pin Coupler Gasket

Maintenance Parts:

- 618 Autoclavable Lubricant
- 638 Impact Air 45® Cleaning Kit

Accessories:

- 625 ISO-B/ISO-C Adapter Module 5-Hole
HP to ISO-C Tubing
- 627 Quick Disconnect Coupler – 6 Pin
- 628 Quick Disconnect Coupler – 4 Hole
- 629 Quick Disconnect Coupler – 5 Hole

**FOR SERVICE, MAINTENANCE
OR REPAIRS CALL: 1-877-418-4782**

LIMITED WARRANTY

Your Impact Air 45® handpiece is warranted against defects in materials and workmanship for a period of one year from date of purchase. The autochuck turbine that comes in your handpiece is warranted for 90 days from the date of purchase. The warranty is limited to the original purchaser.

All warranties are subject to the following conditions:

- The handpiece must not have been subjected to accident, misuse, abuse or operated contrary to the operating instructions outlined in this booklet.
- The handpiece must not have been previously altered, repaired or serviced by anyone other than Palisades Dental.
- Failure to use ONLY Palisades Dental parts in the handpiece will void the warranty.
- Failure to follow the maintenance guidelines in the booklet will void the warranty.

DISCLAIMER: Palisades Dental, LLC assumes no liability for equipment damage, accidents, or bodily injury resulting from, but not limited to:

- The handpiece being operated contrary to the operating instructions outlined in this booklet.
- The handpiece being altered, repaired or serviced by anyone other than Palisades Dental.
- Failure to use ONLY Palisades Dental parts in the handpiece.
- Failure to follow the maintenance guidelines in this booklet.



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