

WARRANTY

**WARRANTY:** Except with respect to those component parts and uses which are hereinafter described, DENTSPLY NeyTech warrants this handpiece to be free from defects in material and workmanship for a period of 1 year from the date of sale. DENTSPLY NeyTech's liability under this warranty is limited solely to repairing or, at DENTSPLY NeyTech's option, replacing those products included within the warranty which are returned to DENTSPLY NeyTech within the applicable warranty period (with shipping charges prepaid), and which are determined by DENTSPLY NeyTech to be defective. This warranty shall not apply to any product which has been subject to misuse; negligence; or accident; or misapplied; or modified; or repaired by unauthorized persons; or improperly installed. Do not disassemble handpiece or components as this voids warranty.

**INSPECTION:** Buyer shall inspect the product upon receipt. The buyer shall notify DENTSPLY NeyTech in writing of any claims of defects in material and workmanship within thirty days after the buyer discovers or should have discovered the facts upon which such a claim is based. Failure of the buyer to give written notice of such a claim within this time period shall be deemed to be a waiver of such claim.

**DISCLAIMER:** The provisions herein stated DENTSPLY NeyTech sole obligation and exclude all other remedies or warranties, expressed or implied, including those related to *MERCHANTABILITY* and *FITNESS FOR A PARTICULAR PURPOSE*.

**LIMITATION OF LIABILITY:** Under no circumstances shall DENTSPLY NeyTech be liable to the buyer for any incidental, consequential or special damages, losses or expenses.

**LIMITATION OF ACTIONS:** The buyer must initiate any action with respect to claims under the warranty described in the first paragraph within one year after the cause of action has accrued.



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GRAND HURRICANE

Owner & Operator's Manual

	PART NUMBER
Handpiece Only	7200980
Complete System	7200990

Description	Page
Safety .....	2
Features .....	2
Setup & Operation .....	3
Specifications .....	4
Maintenance .....	4
Troubleshooting .....	5
Product Service .....	6
Accessories .....	7
Warranty .....	Back



**SAFETY**

- Wear eye protection when operating a handpiece.
- Use cutting tools rated at 400,000 RPM or higher.
- Operate handpiece with tool in chuck.
- Use tubing with pressure ratings equal to or higher than your compressed air supply.
- Read the filter regulator / lubricator instructions and warning, prior to use.

**FEATURES**

- Heavy Duty High Torque Design.
- High Speed Operation: 300,000 RPM
- Ultra Smooth Operation
- Completely Enclosed Turbine Assembly

**SETUP**

UNPACKING  
Carefully unpack and remove the GRAND HURRICANE from its shipping carton. Save the carton and other packing material for future use in transporting the handpiece.

Shipping damage should be reported to the carrier as soon as detected.

- The GRAND HURRICANE shipping carton contains the following:
- One Grand Hurricane handpiece
  - Owner & Operator's Manual (this document) and M.S.D.S.
  - Sample Bottle of Handpiece Oil
  - (2) Felt Mufflers
  - (2) Chuck removal tools - (one small slot tool) / (one large slot tool)
  - Spring Insertion Tool (used when replacing mufflers)
  - (1) Large Hose Ring Clamp
  - (1) Small Hose Ring Clamp
  - Burr Insertion Tool

- (complete system only)
- Foot valve and tubing
  - Filter/Regulator/Oiler Assembly
  - Hose Ring Clamps and Tie Downs
  - Large Sample Bottle of Handpiece Oil

**ACCESSORIES and PARTS**

<u>Description</u>	<u>NUMBER</u>
<u>NEY Handpiece Oil</u>	
For air powered handpieces. Formulated	2 oz. 7200034
for performance and protection	8 oz. 7200035
<u>Felt Muffler Replacement</u>	
Package of 6	7200558
<u>GRAND HURRICANE Replacement Chuck</u>	1/16" 7200506
<u>GRAND HURRICANE Turbine Assembly</u>	
Complete with chuck	7200970
<u>Burr Insertion Tool</u>	7201279

## PRODUCT SERVICE

BEFORE RETURNING THE HANDPIECE, DO THE FOLLOWING:

1. Remove the hose from the handpiece. ALWAYS ship handpieces with a tool installed. If the filter regulator is being returned remove the oil.
2. Pack the handpiece or system in the original packing material. Contact DENTSPLY NeyTech for replacement packing if necessary.
3. Call DENTSPLY NeyTech for a RMA number (Return Material Authorization). This is used to track and identify your handpiece or system. Material received without this number may not be identifiable.
4. Mark the RMA number clearly on the outside of the packaging.
5. Equipment damaged in shipment as the result of improper packing may not be paid by the carrier. DENTSPLY NeyTech Company will not be responsible for damages resulting from improper packing.

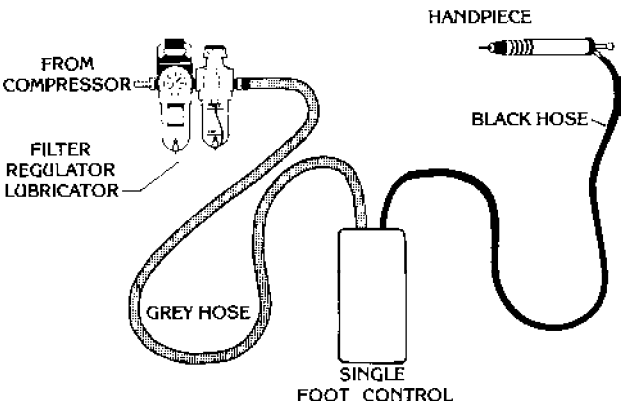
909.795.2461  
FAX 909.795.5268

Ship Prepaid To:  
DENTSPLY NeyTech  
RMA Number \_\_\_\_\_  
13553 Calimesa Blvd.  
Yucaipa, CA 92399-2303USA

## SETUP and OPERATION

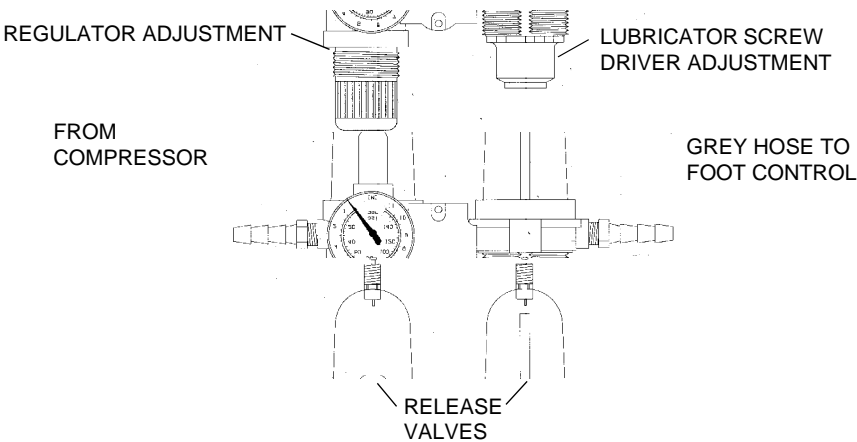
### SETUP:

1. Connect handpiece to black hose supplied. Use the wire hose clamp to secure the hose.
2. Connect compressed air supply to filter/regulator assembly input. Connect the foot control to the filter/regulator with gray hose supplied and secure with wire hose clamps.



3. Fill lubricator to full mark with oil provided.
4. The pressure is preset at the factory to 45psi (3.1 Bar). The pressure is adjusted by pulling up on the black knob and turning. Pushing it back down will lock it in position.

**MAXIMUM PRESSURE 50 psi ( 3.4 Bar)**



5. Lubricator should need a refill every 3 to 4 weeks under continued use and 6 to 8 weeks with intermittent use. The drip rate is preset at the factory, but may be changed if necessary to meet the above rates. Do not attempt to refill lubricator bowl while unit is pressurized; adjust regulator to 0 pressure and then unscrew the lubricator bowl to remove it. Use the 2 oz. oil bottle with the tapered spout to fill the lubricator. Replace the plastic regulator and/or lubricator bowl if any sign of crazing, cracking or other damage exist.
6. Keep filter bowl drained of water by pushing release valve on bottom of bowl. A clean, dry air supply is recommended for longer tool life.
7. Push the cutting tool into the chuck by pressing it against a wood or other similar surface until the tool bottoms out.
8. Only use cutting tools rated for **400,000 rpm or more**.
9. When cutting with this tool, use very light pressure as efficiency is increased at high rpm. Use of a sharp cutting tool is recommended for proper cutting and increased turbine life. Heavy side loading or pressure will reduce the life of the product's bearings.
10. To eject the tool, depress tool ejector.

**CAUTION: Never push tool ejector when cutting tool is turning as this will damage the handpiece.**

## SPECIFICATIONS

### OPERATIONAL:

Maximum Operating Pressure: 50 psi (3.4 Bar)  
 No Load Speed Range: 290,000 to 320,000 RPM  
 Burr Diameter: 1/16" Friction Grip  
 Airflow: .8 CFM @ 45 psi

### ENVIRONMENTAL:

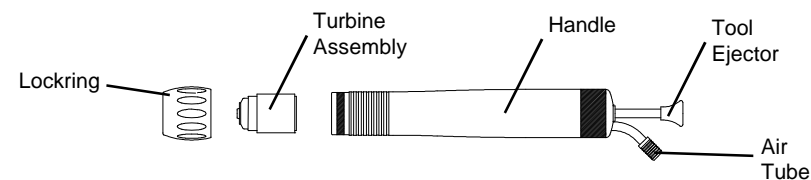
Ambient Operating Temperature: 5 - 40°C (40 - 105°F)  
 Relative Humidity: Maximum 80%, non-condensing

**Handpiece Weight:** 3.2 oz ( 92 grams )  
**Handpiece Only Shipping Weight:** 1 lb ( 0.45 Kg )  
**System Shipping Weight:** 4 lbs ( 1.8 Kg )

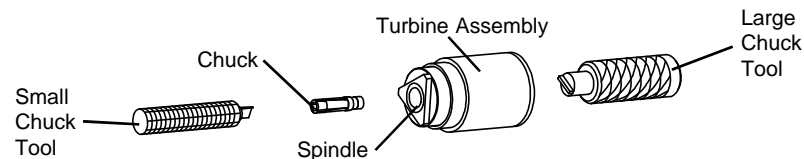
## MAINTENANCE

### CHUCK CLEANING / REPLACEMENT

1. Remove the tool from the chuck, unscrew the locking and remove the turbine assembly.



2. Insert the small chuck tool into chuck and hold the turbine with the large chuck tool. Unscrew chuck.

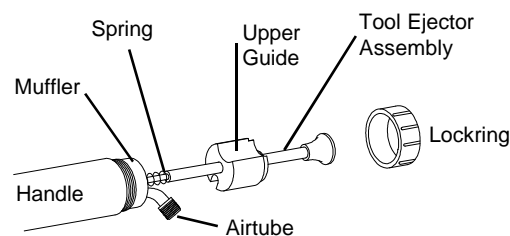


3. Clean chuck in alcohol. Dry with compressed air. Grease chuck.
4. To replace chuck: screw in until chuck stops which would be about flush with end of spindle. (Do not force.)
5. After reassembly verify that the locking is tight. A loose locking will damage the handpiece.

### FELT MUFFLER REPLACEMENT

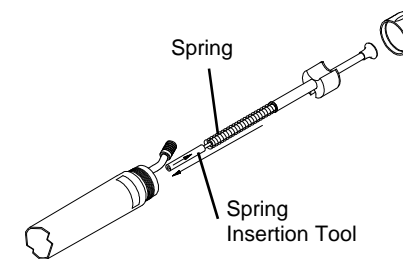
When the muffler (P/N: 72-00-558) inside the handle becomes saturated with oil, it should be replaced.

1. Unscrew tool ejector locking, depress tool ejector and remove locking.



2. Pull tool ejector assembly (including spring) out of handpiece.
3. Remove and replace felt muffler.

## MAINTENANCE (cont.)



4. Slide spring over tool ejector, insert spring insertion tool and insert assembly into handle.
5. Carefully depress tool ejector while aligning small groove in plastic upperguide with air tube. If resistance is felt, do not force, rotate tool ejector to help align its small end with the lower guide that is located inside the handle.
6. With upper guide fully inserted in handle, depress tool ejector and install locking. Remove spring insertion tool.

### FILTER - REGULATOR - LUBRICATOR

1. Keep filter bowl drained of water by pushing release valve on bottom of bowl. A clean, dry air supply is recommended for longer tool life. Running water through the handpiece bearings will damage them.
2. Lubricator should need a refill every 3 to 4 weeks under continued use and 6 to 8 weeks with intermittent use. Drip rate is preset at the factory, but may be changed if necessary to meet the above schedule. Do not attempt to refill lubricator bowl while unit is pressurized; adjust regulator to 0 pressure and then unscrew the lubricator bowl to remove it. Use the 2 oz. oil bottle with the tapered spout to fill the lubricator. Replace the plastic regulator and/or lubricator bowl if any sign of crazing, cracking or other damage exist.
3. Fill lubricator to full mark with oil provided.
4. Reset regulator to 40 - 50 psi (2.7 - 3.4 Bar) by turning black knob. Knob must be up to adjust / down to lock.

**NOTE:** DO NOT EXCEED 50 PSI OUTLET REGULATOR SETTING.

## TROUBLESHOOTING

- **Handpiece not rotating at high rpm:**  
 Check air pressure at regulator is at 40 - 50 psi (2.7 - 3.4 Bar).  
 If air pressure is less than 40 psi (2.7 Bar), adjust to 45 psi (3 Bar).  
 If still slow call for technical assistance.
- **Air pressure to handpiece will not regulate:**  
 Disassemble regulator and inspect diaphragm for holes or cracks.  
 If holes or cracks are observed, replace diaphragm.  
 If no holes or cracks are observed, replace or repair regulator.
- **Water spraying/dripping from handpiece:**  
 Verify filter bowl is drained of water.  
 If water is observed on bottom of bowl, then push release valve on bottom of bowl.
- **Oil leaking from back of handpiece:**  
 Check felt muffler. If saturated with oil, replace felt muffler.  
 Then verify drip rate at 1 to 3 drops per minute.  
 If drip rate exceeds 3 drops per minute, then adjust lubricator as described in the maintenance section.
- **Tool ejector stuck down or loose:**  
 Stopping or slowing the handpiece with the tool ejector can weld and break the end of the tool. Send handpiece in for repair.