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Patent No. 6,241,739 & 6,500,183 • Other Patents Pending worldwide

General Warnings



The exclamation point within a triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instruction.



Type BF (referring to the degree of electrical protection against shock)

1. Before each use, inspect the Diamondtome™ console and accessories for proper operation.
2. Altair Instruments' equipment is intended for use by professionals who are well versed in skin exfoliation.
3. Do not autoclave the console. Exposure to extreme heat will damage internal mechanisms.
5. Do not immerse the console in any solution.
6. Do not attempt to service the Diamondtome™ console or remove any panels. There are no serviceable parts. Return to Altair Instruments for service as necessary.
7. Review the "Care and Cleaning Instructions" section of this manual. Proper cleaning of the wands is important to keep them clean and effective.
8. Equipment not for use in the presence of **FLAMMABLE ANAESTHETIC MIXTURE WITH AIR OR WITH OXYGEN OR NITROUS OXIDE.**
9. Never operate the system with a damaged power cable.
10. The power cable supplied has a "hospital grade" connector. The wall mounted receptacle must also be marked "hospital grade".
11. Hearing protection is suggested if the system is used in a confined room.

Indications and Contra-Indications

Indications

- Informing the patient of the reasonable expectation from exfoliation is essential to prevent disappointment, especially with acne scarring. It may take multiple treatments to visualize improvements and the patients should be told to expect results only after multiple treatments.
- Improved smoothness, texture, luminescence
- Improved mild photo damaged skin-mottled pigmentation
- Acne-comedonal
- Improves acne scarring

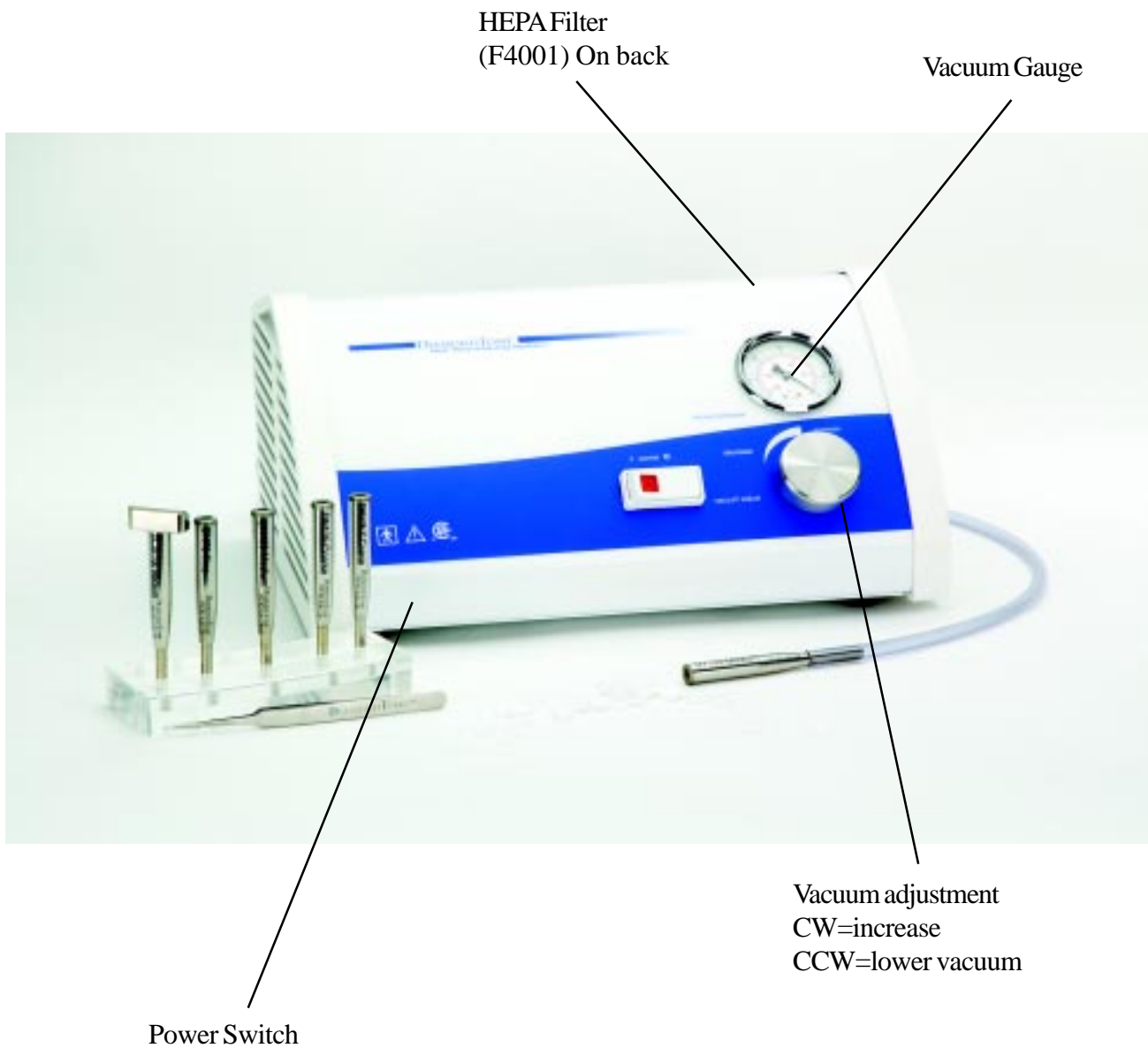
Contra-Indications

- Exfoliation is contraindicated for patients with active infection of all types, such as herpes simplex virus or flat warts.
- Active acne
- Uncontrolled diabetes
- Eczema, dermatitis
- Skin Cancer
- Vascular lesions
- Oral blood thinner
- Rosacea
- Tattoos-not effective
- Pregnancy

Side Effects and Complications

- Mild erythema and increased sensitivity is expected, symptoms resolve within a few hours.
- Petechiae may appear during or after the treatment. This usually indicates that the vacuum setting is too strong. Photodamaged skin is particularly sensitive to this type of reaction and will resolve within two days.
- Telangiectasia/erythema may be worsened or brought out by skin exfoliation.
- Post inflammatory hyperpigmentation can often be avoided with sun block and sun avoidance.

Console Components



System Setup

1. Review the voltage rating on the label to make sure it is the same as your wall outlet.
2. Plug the power cord into the receptacle on the back of the console. Plug remaining end of the power cord into a hospital grade grounded wall outlet.
3. Insert the F4001 Hepa filter assembly into the console.
4. Insert the wand into the tube set.
5. Depress the POWER switch in front of the console to turn the unit on.
6. To adjust the pressure:
Occlude the wand tip. Turn the control knob (CW increases the pressure, CCW decreases the pressure). **Always start at a low setting. 5 in-hg is a common starting point.**

Warning: *Test the setting on the patient's hand or arm. Excessive pressure will cause redness or bleeding.*

Care and Cleaning Precautions

Cleaning and Sterilization

The wand is a reusable device. It is considered a semi-critical device, which comes into contact with intact skin. High levels of disinfecting are the minimum process requirement.

Immediately after each use, the wand should be cleaned by soaking in enzymatic detergent for 15 minutes. The wand should then be washed in hot running water and the abrasive surface scrubbed with a brush to remove protein material.

The wand then can be placed in a disinfecting solution. Read the label on the solution for the proper soak time.

Caution: *Never exceed the recommended soak time (per the disinfectant labeling) in disinfectant solution. Soaking beyond the recommended times will damage and corrode the wands.*

Steam Sterilization

The wand can withstand steam sterilization. Steam sterilization should always be used if the surface of the skin may be penetrated.

Gravity Displacement Steam Sterilization: If the wand is sterilized in a unwrapped tray the “flash” cycle may be used. This is five minutes at a minimum temperature of 132°C (270°F) in a steam autoclave.

Cleaning the Tubing

After removing the tubing from the filter, the tubing may be washed with warm water and detergent. The tubing should be shaken to remove as much water as possible. Small drops of water left in the tubing after cleaning will not harm the console.

The used filter disc must be disposed as a biohazard.

Cleaning the Console

The console can be cleaned with a damp cloth and mild liquid detergent.

F4001 HEPA Filter



The F4001 HEPA Filter can be used with or without the small filter disc.

In some cases patients like to see the material removed and collected on the filter disc. In other cases, such large amounts of skin cells are removed, that the filter disc may have to be changed several times during one treatment. In these cases, simply do not use the small disc, as the HEPA filter will collect the cells.

The F4001 Filter will entrap all the debris (down to a level of .3 microns).

The F4001 Filter is considered "limited use" and it is estimated that you will be able to do approximately 250 treatments before the filter is full. (When the filter is full, the vacuum gauge will not fluctuate and the filter must be replaced.)

We recommend that you have a spare filter on hand.

Filter Disc Replacement

1. Remove the tubing from the filter housing.

After each use the filter disc should be replaced. A clogged disc will not allow the air to pass freely through the assembly.



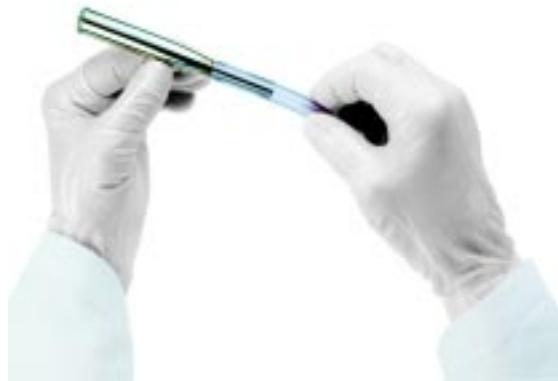
Remove the soiled disc and discard. Replace with a new filter disc.

If the tubing is soiled it may be washed with detergent and warm water. The replacement filter disc must be aligned so that it sits squarely within the tubing. If the disc is not properly installed, it will not trap all the debris.

3. Replace the tubing.

4. Connect the tubing and wand.

The wand and tube set are a simple friction fit. A small amount of lubricant on the wand connection makes removing the tubing easier.



5. Double check that everything is sealed.

Diamondtome Skin Resurfacing System

The Diamondtome System is designed for removal of dead cells on the surface of the skin.

The variables the system offers are:

- Wand selection, 75, 100, 125 or 175 micron
- Vacuum setting
- Number of passes on the skin

Wands

Bonded on to the ends of the wand are natural diamonds. The diamonds abrasive size is measured in microns. The wand with 75-micron diamond abrasive is fine. The medium wand has a diamond abrasive which is 100 microns. The finer the abrasive, the less material is removed with each pass.

The diamond abrasive will not wear or become dull over time. What is very important is to keep the abrasive surface clean. Instructions for cleaning and sterilization are in previous chapters.

Vacuum

The vacuum setting determines the amount of pressure between the skin and the abrasive surface. Low vacuum setting, 8 in-hg, applies a low force. High vacuum setting, 20 in-hg, applies a high force between the skin and the abrasive. A high vacuum setting can cause redness (Petechiae). This usually indicates that the vacuum setting is too high. Normally, the redness resolves in a few hours.

Warning: *Never use vacuum around the eye area. Vacuum can cause redness and swelling in this sensitive area.*

The vacuum setting can only be read when the wand end is covered. Cover the end of the wand and the gauge will show the current vacuum setting. Turning the valve knob clockwise will increase the vacuum pressure. Turning the valve counter-clockwise will lower the vacuum setting. In other words, a low vacuum setting is conservative and a high setting is aggressive.

Number of Passes

The wands should pass over the skin surface at least twice and the passes should be overlapping to achieve a uniform result. The first pass is normally vertical and the second pass is horizontal. The speed which you move the wand is not critical.

Basic Skin Resurfacing Treatment

Use basic treatment parameters for the following skin conditions:

- Fine Lines
- Dry Skin
- Sun Damaged Skin
- Seborrhea

Treatment should go in the following manner for 6 sessions:

- The first 3 treatments should be done in 14 day intervals.
- The next 3 treatments should be done in 21 day intervals.
- Maintenance treatments should be done once every 6 weeks.

Clients need to comply with a maintenance program to achieve full results.

Basic Protocol

- Drape clients hair and clothing.
- Apply a small amount of cleansing liquid to skin with fingertips. Massage in upward, circular pattern. Work into lather. Rinse thoroughly with premoistened warm towel or tepid 4x4 gauze pads.
Hint: There is no need to wait for the skin to dry before beginning treatment.
- Start the first exfoliation procedure with the vacuum adjustment at a lower setting: 5 to 10 in-hg.
- Begin first treatment with the medium DiamondTone™ wand (100 micron).
- Perform a test site on the under side of the patient's arm before proceeding.
- Key ingredient of the treatment protocol is selecting the appropriate DiamondTone wand, number of passes, and vacuum setting.
- Keep skin taut and wand at a 90 degree angle where applying treatment.

Divide the face into Zones

Zone A: Forehead (below the hairline and above the eyebrows)

Zone B: Eye Area (treat this area last)

Zone C: Nose, Cheeks to Upper Lip (mid-face)

Zone D: Lower Lip to Lower Jaw (mandible)

Zone E: Neck and Décolleté'

Zone A: The Forehead

Begin the first treatment conservatively and observe the effect by sight. With the medium wand and vacuum setting at 5-10hg, start by going from the brows to hairline vertically; go over area repeatedly to achieve desired depth of abrasion. Repeat the pattern horizontally.

Zone B: The Delicate Eye Area

Do this area last. Use the fine wand without vacuum for comfort and safety. Take additional steps to keep the skin taut and avoid areas inside the orbital opening.

Zone C: The Mid-face

Begin on the side of the face with vertical passes and cross with horizontal passes. Go over areas repeatedly to achieve desired depth of abrasion. Move down on the nose following the contours, and around the creases on the side of the mouth. Work the Upper Lip area moving horizontally from the corner of the mouth over to encompass the smile lines, make sure the skin is kept taut. To treat vertical rhytids (wrinkles) use vertical passes in conjunction with horizontal passes. For clients prone to Herpetic outbreaks on their lips, avoid the vermilion boarder.

Zone D: Lower Lip to Lower Jaw

Work the Lower Lip & Lower Jaw areas with vertical and horizontal passes.

Zone E: Neck and Décolleté'

Use the fine or medium wand with reduced vacuum settings when working on the neck to avoid streaking. Most clients require only upward and downward passes on the neck area, unless you are blending non-lasered skin. If horizontal passes are necessary, perform them from center outward. Always make sure the skin is held taut. The Décolleté' will require vertical and horizontal passes using the fine or medium wand with lower vacuum setting just like the neck.

- After fully exfoliating the face, neck, etc., return to areas that require more attention: hyper pigmentation, fine lines or scars.
- Rinse face with soothing cleanser and cool compresses.
- Apply appropriate calming mask and place cool compress over mask, leave on 5-10 min.
- Remove product with cool towel.
- Apply moisturizer and sun block.

Technical Specifications



Round Wands For the Face

DT75 Fine Wand

75 Micron Diamond Grit

DT100 Medium Wand

100 Micron Diamond Grit

DT125 Coarse Wand

125 Micron Diamond Grit

DT175 X-Coarse Wand

175 Micron Diamond Grit

DN75 Fine Nose Wand

75 Micron Diamond Grit

DN100 Medium Nose Wand

100 Micron Diamond Grit

DN125 Coarse Nose Wand

125 Micron Diamond Grit

DN175 X-Coarse Nose Wand

175 Micron Diamond Grit

T2000 Tube Set with 50 Single use filter discs.

F4001 HEPA Filter

Hospital Grade Power Cord

Contoured Wands For The Face

DC20-75 Fine Contoured Wand 20mm

75 Micron Diamond Grit

DC20-100 Medium Contoured Wand 20 mm

100 Micron Diamond Grit

DC20-125 Coarse Contoured Wand 20 mm

125 Micron Diamond Grit

DC20-175 X-Coarse Contoured Wand 20 mm

175 Micron Diamond Grit

Contoured Wands For The Body

DC25-75 Fine Contoured Wand 25mm

75 Micron Diamond Grit

DC25-100 Medium Contoured Wand 25mm

100 Micron Diamond Grit

DC25-125 Coarse Contoured Wand 25 mm

125 Micron Diamond Grit

DC25-175 X-Coarse Contoured Wand 25 mm

175 Micron Diamond Grit

DC30-75 Medium Contoured Wand 30 mm

75 Micron Diamond Grit

DC30-100 Medium Contoured Wand 30 mm

100 Micron Diamond Grit

DC30-125 Coarse Contoured Wand 30 mm

125 Micron Diamond Grit

DM5000A Console Assembly

Classification: Protection Class I, (per IEC 60101-1)
Type BF Applied parts
Water Ingress protection: Ordinary Equipment

Line (Mains) Supply: DM5000A rated voltage, 5A/115V-60 Hz

Duty Cycle: 50% - 30 minutes on 30 minutes off

Fuses: 6.3A 250V Time Delay, 5mm x 20mm
Bussman P.N. GDC-6.3A
To replace the fuses, the power cord must be disconnected from the console.
The fuses are located in the Power Entry Module on the rear of the Console. Use a small screwdriver to open the cover. Replace fuses if necessary.

Protective Grounding:
The Diamondtome Console uses a protective ground connected internally; use cord supplied or medical grade grounded cord to ensure integrity of this feature.

Technical Information for repair:
The Diamondtome Console does not contain any parts that are serviceable except by Altair Instruments or authorized service centers.

Environmental Conditions:
Cooling: Do not cover. Allow free ventilation of unit. Do not block ventilation.
Stability: Use on horizontal surfaces.

Transportation and Storage:
Temperature: -20°C to +70°C (-4°F to 158°F)
Relative Humidity: 10% to 100% non-condensing
Atmospheric Pressure: 500 hPa to 1060 hPa

Disposal:

The single use filter disc, which accumulates skin cells during the procedure, should be disposed of as a biohazard. Place the disc in a “sharps” container for disposal following each procedure.

The HEPA filter may be used for multiple procedures but, ultimately it will become clogged with cells. To dispose of the filter, replace the protective cap on the vacuum inlet. Dispose of as a biohazard, which conforms to local government regulations.

The console does not contain any hazardous materials that may contaminate or harm the environment or present any risk to individuals disposing of the product. The console is mainly constructed of steel, which can be recycled.

Altair Instruments Ordering Information

Three Easy Ways to Order

1. Call **1-805-388-8503**: To speak with an Altair Instrument Technical Representative please call between 7:30 AM to 4:00 PM PST.
2. Fax **1-805-388-9503**: Fax us your order.
3. E-Mail: e-mail your order to **info@newapeel.com**

To contact the manufacturer, write:
Altair Instruments Inc.
330 North Wood Road, Suite J
Camarillo, CA 93010 U.S.A.

Warranty

Altair Instruments warrants that the instruments and parts sold by Altair Instruments have been tested, inspected and left the factory in proper working condition, free of visible defects. Altair Instruments warrants the Diamondtome Console for 3 years from date of invoice. Defective parts replaced under Altair Instruments warranty shall become the property of Altair Instruments. The Diamondtome wands are warranted for 2 years from the date of invoice. This warranty is exclusive and in lieu of all other warranties, whether written, oral or implied. Altair Instruments specifically disclaims the implied warranties of merchantability or fitness for a particular purpose.

An additional one-year extension can be purchased. Call Altair Instruments or your representative for details.

Repairs and Service

Altair Instruments warrants to the Customer that any product service or repair work performed by Altair Instruments will be free from defects in workmanship and materials for a term of six (6) months after the date of shipment back to the Customer. This limited warranty applies only to the actual work performed by Altair Instruments. All parts replaced under these limited warranties shall become the property of Altair Instruments.

Altair Instruments does not warrant any product, components or parts not manufactured by Altair Instruments, damage caused by use of any product for purposes other than those for which it was designed, damage caused by unauthorized repairs, attachments, accessories or modifications, or any other abuse or misuses by the Customer.

The console must be returned in the original shipping container. The packaging is designed to protect the console from damage during shipping.



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