

Product Warranty

Virtual Industries, Inc.
PRODUCT WARRANTY
LIMITED 90 DAY WARRANTY

The above named company warrants to the original consumer purchaser that its PORTA-WAND® ELITE™ shall be free from defects in material and workmanship for a period of 90 days from the date of purchase. If a defect covered by this warranty occurs during the 90 day warranty period, contact the above named company for repair or replacement of the unit, at the option of the above named company. For the correct address and return authorization # call:

1-800-530-8377 or (719) 572-5566

This warranty does not cover damage or malfunctions resulting from improper handling, accident, misuse, abuse, failure of electrical power, use with other products not manufactured by the above named company, damage while in transit for repairs, repairs attempted by any unauthorized person or agency, or any other reason not due to defects in materials or workmanship. This warranty is also void if the serial number has been altered, defaced or removed.

UNIT SERIAL NUMBER _____

THE ABOVE WARRANTIES FOR GOODS ARE IN LIEU OF ALL WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ABOVE NAMED COMPANIES LIABILITY IS LIMITED SOLELY TO THE REPAIR OR REPLACEMENT OF THE UNIT IN ITS SOLE DISCRETION, AND IN NO EVENT SHALL INCLUDE CONSEQUENTIAL COSTS, EXPENSES OR DAMAGES INCURRED BY THE PURCHASER, INCLUDING WITHOUT LIMITATION ANY DAMAGE TO PRODUCTS BEING HANDLED, EVEN IF THE ABOVE NAMED COMPANY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

THE ABOVE NAMED COMPANY shall have no obligation to enhance or update any unit once manufactured.

Some states do not allow limitations on how long any implied warranty lasts so the above limitations may not apply to you. Some states do not allow the exclusion or limitation or incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

Virtual Industries, Inc.
2130 Victor Place
Colorado Springs, CO 80915
U.S.A.

For technical assistance call toll free 1-800-590-2829
Tele: 719-572-5566
Fax: 719-572-5504
8:00 A.M. to 4:30 P.M. Mountain Standard Time



9/26/08

OPERATING INSTRUCTIONS, SPECIFICATIONS AND PRODUCT WARRANTY

PORTA-WAND® ELITE™ Patented Vacuum Tweezer

Model No. VPWE7000AR



Charging the PORTA-WAND® ELITE™

Plug the transformer into an outlet and the power connector into the jack on the side of the charger stand. The red INPUT POWER indicator will light and stay on as long as input power is connected.

Insert the Porta-Wand Elite into the charger stand. The charging stand detects the presence of a battery and turns on both the green BATTERY CHARGING LED and the green BATTERY CHARGED LED. After a moment the BATTERY CHARGED LED will turn off and the BATTERY CHARGING LED will stay on. The rechargeable battery is now being charged. If the battery pack was completely drained before charging then the BATTERY CHARGING LED will stay on for up to 120 minutes. For a partially discharged battery the BATTERY CHARGING LED will stay on for a shorter time period depending on the charge level at the time the tool was inserted into the charging stand. After the battery reaches full charge the BATTERY CHARGING LED will turn off and the BATTERY CHARGED LED will turn on. The unit can be left in the charging stand — overcharging will not occur. The charger will deliver periodic maintenance charge pulses to compensate for the self discharge characteristics of the battery.

ERROR CONDITIONS

If the indicator lights do not turn on when the tool is inserted in the stand then the battery is either open or shorted. Check to make sure that the contacts on the bottom of the tool are clean. If the problem continues then replace the battery.

If both the green BATTERY CHARGING LED and the BATTERY CHARGED LED turn on and stay on then the battery charge level is too low to begin charging. The charger will attempt to raise the charge slowly before beginning a fast charge. If the problem continues then replace the battery.

If the red power LED is not on then check the power supply connections at both ends.

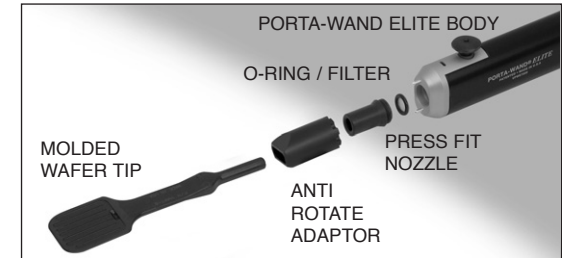
Operation of the PORTA-WAND® ELITE™

To operate the PORTA-WAND® ELITE™ simply depress the button down to turn the unit on and release the button to turn it off. Slight pressure on the button toward the rear may be necessary to prevent the button from locking. The vacuum/battery level indicator light does not illuminate until a SAFE vacuum is established between the wafer tip and the wafer being handled. This same indicator blinks on and off when battery recharge or replacement is necessary. To lock the PORTA-WAND® ELITE™ to the on position press the button down and forward. Relax pressure on the button. The PORTA-WAND® ELITE™ should remain on and running. To turn the PORTA-WAND® ELITE™ off when it is in the locked position simply apply pressure to the button towards the rear of the tool and the button will release. The PORTA-WAND® ELITE™ will now be off and the part released.



Filter Replacement

To replace the air filter, disassemble the unit as shown and reassemble with a new filter. Under normal clean room conditions the inlet filter should be replaced annually, more often in dustier areas. The 0.1 micron internal exhaust filter is located in the battery pack. When you install a new battery you are automatically replacing the rear exhaust filter.



Specifications

BATTERY FACTS:

BATTERY TYPE:	9.6 VOLT NIMH
BATTERY CHARGE TIME:	120 MINUTES FOR A FULL CHARGE
CONTINUOUS RUN TIME:	2 TO 3 HOURS
NUMBER OF COMPLETE RECHARGES:	UP TO 1000
BATTERY REPLACEMENT:	FIELD REPLACEABLE

VACUUM:

Minimum of 15 to 20 inches of mercury depending on elevation and atmospheric pressure.

DIMENSIONS:

	LENGTH	HEIGHT	WIDTH
WAND:	8" (203mm)	1.2" (30mm)	.85" (21mm)
STAND:	4.5" (114mm)	2.0" (51mm)	3.5" (98mm)

WEIGHT:

PORTA-WAND ELITE:	6.4 ounces (181 grams)
CHARGER STAND:	10.5 ounces (298 grams)
TRANSFORMER:	16 ounces (454 grams)

OPERATING TEMPERATURE RANGE:

10C to 45C

RECHARGER POWER REQUIREMENTS:

Wall plug-in power supply 24 VDC @ 500 ma.
BARREL JACK SIZE 5.5 mm OD X 2.1 mm ID. Center Pin Positive

PORTA-WAND® ELITE™ OPTIONS:

WALL MOUNT BRACKET

SELECTION OF VACUUM CUPS WITH PROBES

The vacuum cups are a soft rubber material that allow handling a wide variety of small parts.

SELECTION OF MINIATURE VACUUM TIPS

These tips are designed to handle tiny parts as small as 0.02" (0.5mm).

SELECTION OF MOLDED PEEK WAFER TIPS

Tips are molded from the industry accepted carbon filled PEEK to provide chemical resistance as well as ESD safe properties.

SELECTION OF ALUMINUM TEFLON COATED WAFER TIPS

Tips are machined from aluminum and coated with Teflon. Custom configurations available.