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*MANUFACTURING HIGH QUALITY  
ENVIRONMENTAL ABATEMENT EQUIPMENT  
SINCE 1988*

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# OmniAire 2000C Operations and Maintenance Manual

	<b>WARNING</b>	
<p><b>This equipment to be operated only by trained personnel.</b>  <b>Do not use with combustible or explosive material.</b>  <b>Do not expose to water or rain.</b>  <b>Connect only to grounded outlet with GFCI device.</b>  <b>Disconnect power for cleaning and servicing.</b></p>		
 		



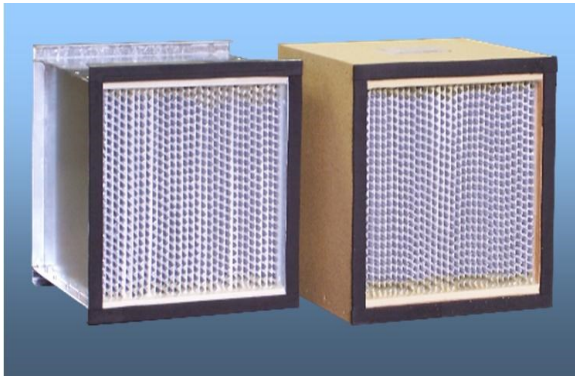
CONFORMS TO UL STD 507  
 CERTIFIED TO CAN/CSA STD  
 C22.2 NO. 113-M1984

**SPECIFICATIONS**

- Motor:** 1.25hp, 115 V 12.0 amps, thermal protected
- Controls:** HIGH/LOW/OFF Switch, CHANGE FILTER Light
- Airflow:** 400 - 1600 cfm.
- Final Filter:** HEPA 99.97% @ 0.3 micron,, particle board frame, 18"x 24"x11.5"
- Pre-filter:** 2-stage poly pad, 35% efficiency, 20"x 25"x 2"
- Housing:** Galvanized Steel
- Weight with Filters:** 125 lbs.
- Dimensions:** 34"L x 20"W x 31"H

**ORDERING INFO.....PART #**

OmniAire OA2000C .....	OA2000C
HEPA Filter 99.97%, 0.3µ .....	OAH2418
HEPA Filter 99.99%, 0.3µ .....	OAH2418G
Primary/Secondary Filter (qty 20) .....	OFP2518
Intake Manifold, 12" .....	OAIM2000-12
Quick Clamp, 12" .....	QCW12
Flexible Duct, 12"x25' .....	OAD25
OdorGuard 600 Carbon Filter .....	OG2418D



The OmniAire OA20000C comes standard with a particle board 99.97% 0.3 $\mu$  HEPA filter and can be upgraded to a metal frame Certified 99.99% 0.3 $\mu$  HEPA.

## **OPERATING INSTRUCTIONS**

**Unpacking:** Visually inspect the unit for damage. Remove the primary/ secondary filter and ensure that the HEPA filter has not been dislodged during shipping. The HEPA filter should be sitting on the filter guides and the filter tabs that hold the HEPA filter in place should be tight. See Figure 1.

If the filter is not seated correctly then remove the filter tabs, reposition the filter, and reinstall the filter tabs before operation to ensure that there is no bypass around the filter.

If the filter tabs are loose verify that the filter is in the correct position and retighten the filter tab nuts.

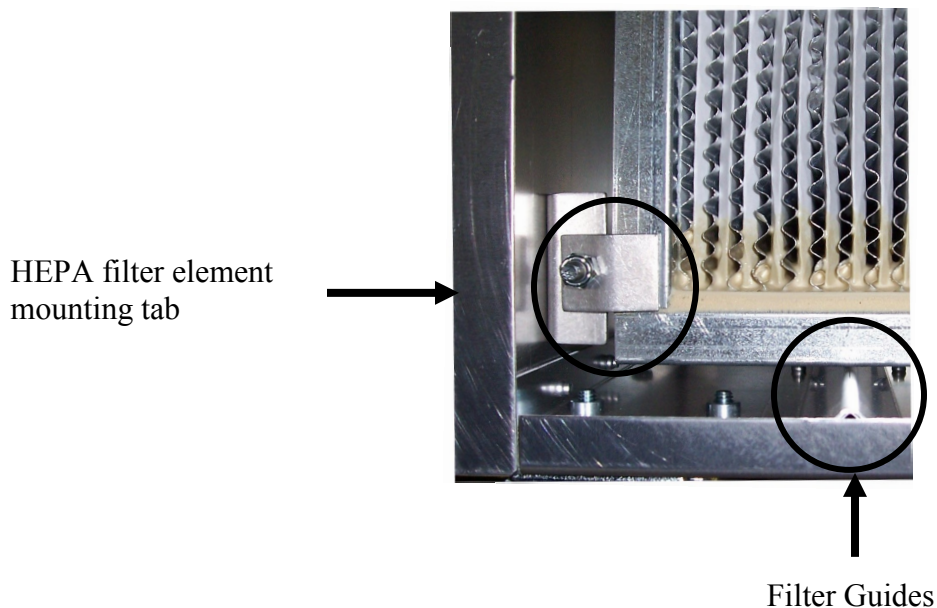


Figure 1

**To create negative pressure inside the containment,** more air has to be exhausted out than leaks into the containment. Place the machine inside the containment and hook a flexible duct to the outlet ring of the machine exhausting to outside the containment. (See Figure 2) All of the air being exhausted has been treated by the HEPA filter so no contaminants are being exhausted from the containment.

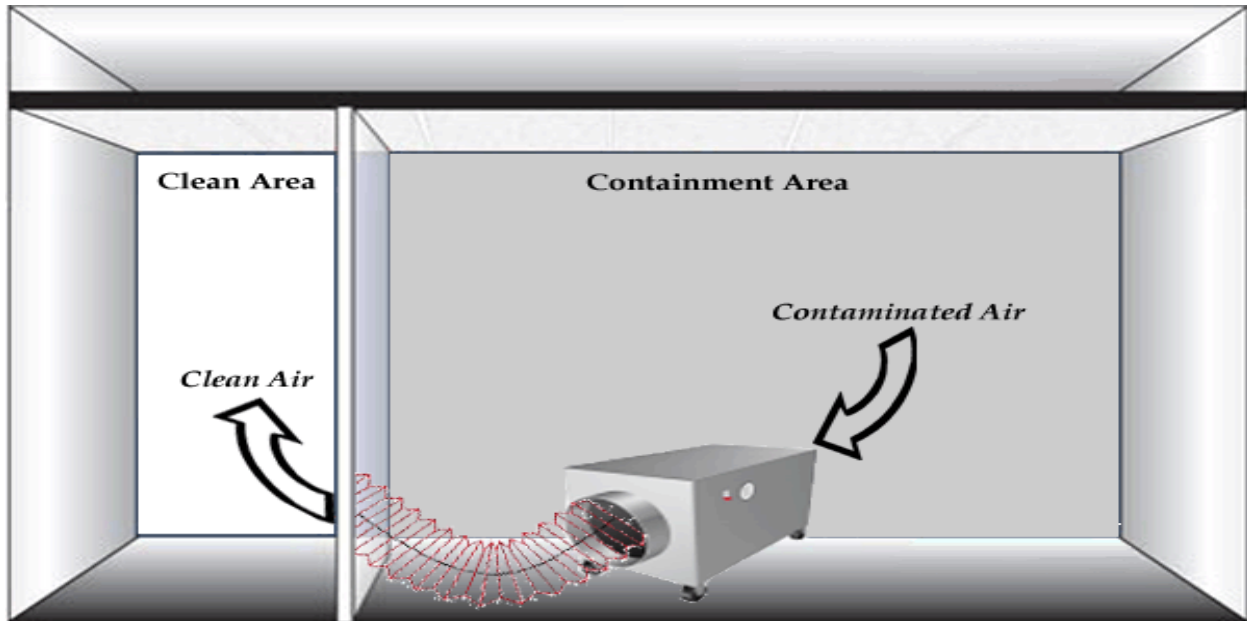


Figure 2

**To create positive pressure inside the containment,** more air has to be pumped in than leaks out of the containment. Place the machine outside the containment and hook a flexible duct to the outlet ring of the machine ducting the exhaust into the containment. (See Figure 3)

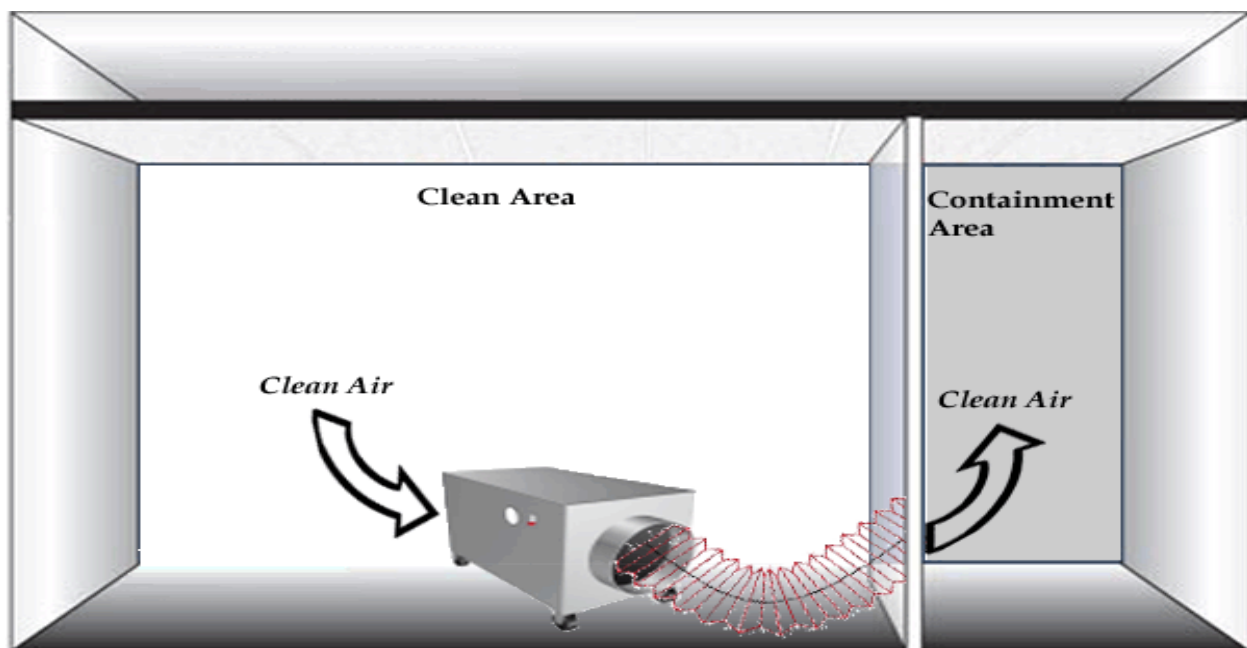


Figure 3

## **MAINTENANCE INSTRUCTIONS**

### **REPLACEMENT OF THE PREFILTER**

Once the “CHANGE FILTER” light comes on with the machine in HIGH SPEED then the prefilter must be replaced. When replacing the prefilter ensure that the orange side of the prefilter is facing the HEPA filter. At this time the “CHANGE FILTER” light will go off.

When the “CHANGE FILTER” light does NOT go off after replacing the prefilter then the HEPA filter is full and must be replaced to maintain airflow.

Please note that even though the HEPA filter is fully loaded the filter is still removing the particulates from the air, but at a reduced airflow which will affect the ability of the machine to provide positive or negative pressure within the containment.

### **REPLACEMENT OF THE HEPA FILTER**

To replace the HEPA filter remove the screen/manifold and remove the prefilter. You will see 4 filter tabs holding the HEPA filter in place. See figure 4 below. These tabs are secured with 1/4-20 Nylock nuts, which require a 7/16” wrench or socket to remove them. Remove all 4 filter tab retaining nuts and remove the filter tabs as well. Slide the HEPA filter out along the filter guides and remove it from the machine.

***ALWAYS TREAT THE USED HEPA FILTER AS HAZMAT AND PROCESS IT ACCORDING TO YOUR ESTABLISHED HAZMAT PROCEDURES.***

To replace the HEPA filter ensure that the gasket on the HEPA filter faces inwards toward the flange, slide the filter in place along the filter guides and re-install the filter tabs and filter tab securing nuts. The nuts should initially be tightened to where the stud is flush with the end of the nut. This will compress the gasket on the filter approximately 1/2 of the thickness. This allows for the filter to be reseated and tightened at a later time if necessary.

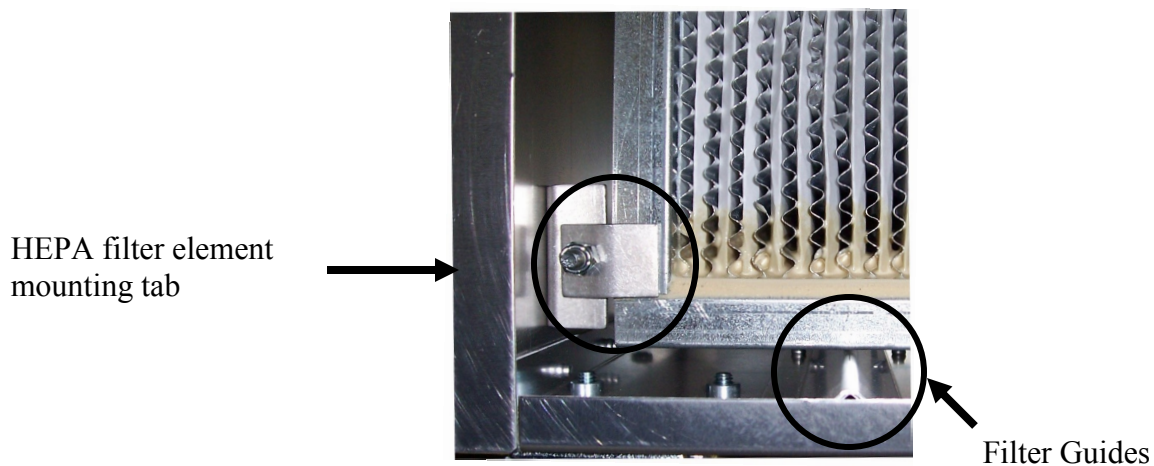


Figure 4

## **Troubleshooting**

Your Omnitec Design machine is designed and engineered to provide years of trouble free service. Occasionally though problems do occur. Here are some helpful tips and solutions to common problems.

### **The machine does not start or just hums when turned on**

1. Check the circuit you have the machine on and ensure that it has power.
2. Remove the HEPA filter and push the blower wheel by hand. If it does not move freely or if you hear a grinding/scraping noise as you spin it then the blower wheel is touching the side of the blower housing. The most common reason for this is that due to an impact of some kind the motor mounts have been bent. Remove the motor/blower assembly and replace the bent motor mounts.
3. If the blower wheel spins freely the next thing to check is the capacitor. With the HEPA filter still removed from the machine push the blower wheel and as it is spinning turn the power switch on. If the machine runs at this point then the problem is in the capacitor. Ensure that the wiring connected to the capacitor is plugged in and not broken. If the wiring is correct, then the capacitor is faulty. Replace the capacitor.

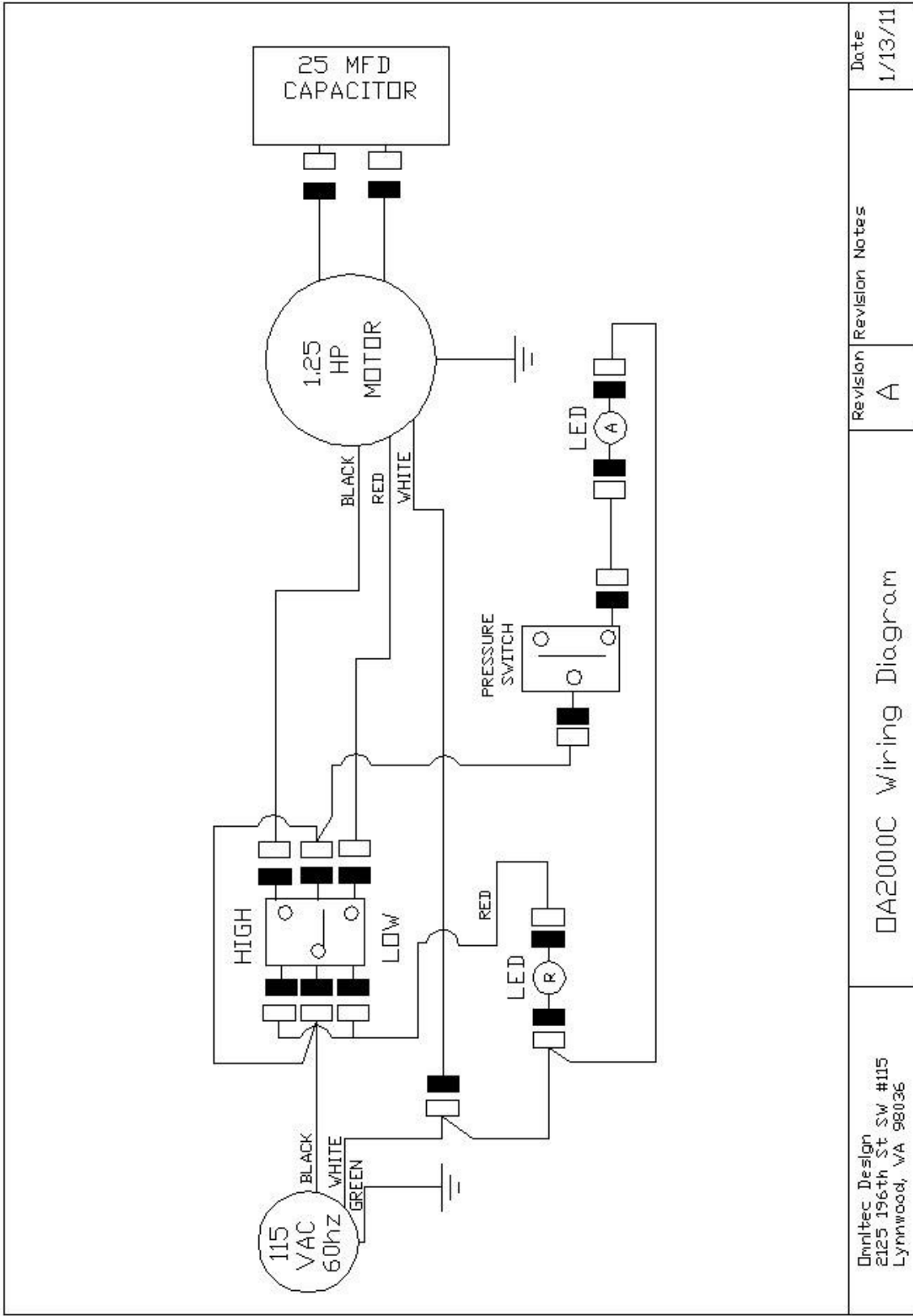
### **The machine will run for a few minutes then turn off**

1. This machine MUST be run with a HEPA filter in place. If you are trying to run it without a filter in place the motor will overheat within a few minutes and the thermal overload in the motor will engage. Let the motor cool off for 30 minutes, install the filter and try running the machine again.
2. If the filter is in place and the machine still shuts off after a few minutes then the motor is faulty. Replace the motor.

### **The machine vibrates excessively when running**

1. This is an indication that the motor bearings are worn. If the machine is allowed to continue running at this point the vibration will cause the center hub of the blower wheel to separate from the wheel requiring replacement of both the motor and blower. Replace the motor.

If the machine does require electrical servicing of the motor or switches the following page contains a wiring diagram to aid in repair or troubleshooting.



Dnritec Design  
 2125 196th St Sw #115  
 Lynnwood, VA 98036

DA2000C Wiring Diagram

Revision A  
 Revision Notes

Date  
 1/13/11

## Omnitec Design, Inc.

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Visit us @ [www.omnitecdesign.com](http://www.omnitecdesign.com)

Office: 425-290-3922

# OMNITEC DESIGN, INC.

## LIMITED WARRANTY

Omnitec Design, Inc. warrants that all products, component parts and accessories, excluding filters, will be for a period of twelve (12) months from the date of purchase, be free from defects in material and workmanship under normal use and service.

THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS F.O.B., **OMNITEC DESIGN, INC. 4640 CAMPUS PLACE #110 MUKILTEO, WA 98275 Ph # 425-290-3922, Fax # 425-290-3964**

In order to keep this in effect, the purchaser must (i) return this signed LIMITED WARRANTY to Omnitec Design within 30 days of purchase date, (ii) have promptly informed Omnitec Design's Customer Service of any defects and (iii) properly used and maintained the Product.

This warranty does not cover normal wear and tear or defects due to (i) improper or negligent handling or unauthorized modifications; (ii) defective or improper premises, chemical or electrical influences; or (iii) weather or other influences of nature.

### LIMITATIONS OF WARRANTY

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY AND ALL OTHER WARRANTIES AND OBLIGATIONS OF OMNITEC DESIGN OR ITS SUPPLIERS, EXPRESSED OR IMPLIED, AND OMNITEC DESIGN EXPRESSLY DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

### LIMITATION OF REMEDY

Under no circumstance shall Omnitec Design or any supplier of Omnitec Design be liable for any loss or damage, including, but not limited to, loss or damage arising out of the failure of the Products to operate for any period of time, inconvenience, the use of rental or replacement equipment, loss of profits or other economic loss, or general, direct, special, indirect, incidental or consequential damages or property damages.

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Many states and localities have codes and regulations governing sales, construction, installation, and/or use of products for certain purposes, which may vary from those in neighboring areas. While Omnitec Design attempts to assure that its Products comply with such codes, it cannot guarantee compliance, and cannot be responsible for how the Products are installed or used. Omnitec Design recommends that before purchasing and using a Product, purchasers review the Product application, and federal, state and local regulations, to be sure that the Products, installation and use will comply with them.

**KEEP THIS TOP PORTION FOR YOUR RECORDS.**

### **LIMITED WARRANTY REGISTRATION**

The undersigned has read and understood the above Warranty, Limitation of Warranty and Limitation of Remedy

PRODUCT Purchased: (Please Circle)

MiniForce II - MF100C; OA600N Nitro; OA600V; OA1000V; OA1200PAC; OA1200V; OA1300V; OA1600PAC; OA2000V; OA2000C; OA2200UL; OA2200C; OmniForce II - OF100V; OWF115; OVH230; OWDP-Watchman

SERIAL # \_\_\_\_\_ PURCHASED FROM \_\_\_\_\_ DATE \_\_\_\_\_

### CUSTOMER:

COMPANY \_\_\_\_\_ PHONE \_\_\_\_\_

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_

BY \_\_\_\_\_ DATE \_\_\_\_\_

SEND TO: OMNITEC DESIGN, INC. ~ 4640 Campus Place #110 ~ Mukilteo, WA 98275